Cloudera AI

ML Runtimes Pre-installed Packages

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ML Runtimes Pre-installed Packages overview

Cloudera AI ships with several base engine images that include Python kernels, and frequently used libraries.

Note: New ML Runtimes releases are automatically added to the deployment, if Internet connection is available.

Note: Cloudera recommends downloading and upgrading to the latest version of ML Runtimes listed under the section ML Runtimes Pre-installed Packages, as the latest version contains possible fixes that are not available in earlier ones. However, you can find the full list of available ML Runtimes in Archive Runtimes list. For upgrade procedures follow the guidelines in Updating ML Runtimes images on Cloudera AI installations.

As the software and versions listed in *ML Runtimes Pre-installed Packages* are installed in the images, you shall not upgrade these versions as this may lead to dependency conflicts. If any related software in this list needs to be at a higher version, you must use a more recent version of the legacy engine or ML Runtimes.

Related Information

Archive Runtimes list

Updating ML Runtime images on Cloudera AI installations

ML Runtimes 2025.09.1

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2025.09.1.

Note:

Freshline Runtime images are based on Ubuntu 25.04. All other Runtime images are based on Ubuntu 24.04.

Spark and Python Supportability

Specific Python versions are compatible with specific Spark versions. For detailed information about the compatibility levels for various Python versions across different Spark releases, see Spark Python Supportability Matrix.

Python 3.12 Libraries for Conda

This section lists the packages in Python 3.12 Conda Runtimes that ship with ML Runtimes 2025.09.1.

Table 1: Packages in Python 3.12.10 PBJ Conda Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0

Library	Version
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11

Library	Version
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.4
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0

Library	Version
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
propcache	0.3.1

Library	Version
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	78.1.1
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0

Library	Version
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.20.1

Python 3.13 Libraries for Workbench

This section lists the packages in Python 3.13 Workbench Runtimes that ship with ML Runtimes 2025.09.1.

Table 2: Packages in Python 3.13.3 PBJ Workbench Runtimes - Standard

Library	Version
annotated-types	0.7.0
anyio	4.9.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	3.0.0
attrs	25.3.0
beautifulsoup4	4.13.4
bitarray	2.9.3
bleach	6.2.0
boto3	1.38.18

Library	Version
botocore	1.38.18
certifi	2025.4.26
cffi	1.17.1
charset-normalizer	3.4.2
comm	0.2.2
contourpy	1.3.2
cryptography	44.0.3
cycler	0.12.1
debugpy	1.8.14
decorator	5.2.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.2.0
fastjsonschema	2.21.1
fonttools	4.58.0
fqdn	1.5.1
gssapi	1.9.0
h11	0.16.0
httpcore	1.0.9
httpx	0.28.1
idna	3.10
impyla	0.21.0
ipykernel	6.29.5
ipython	9.2.0
ipython-genutils	0.2.0
ipython_pygments_lexers	1.1.1
isoduration	20.11.0
jedi	0.19.2
Jinja2	3.1.6
jmespath	1.0.1
jsonpatch	1.33
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2025.4.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.12.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0

Library	Version
jupyter_server	2.16.0
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.8
krb5	0.7.1
langchain-core	0.3.60
langsmith	0.3.42
MarkupSafe	3.0.2
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.1.3
nbclassic	1.1.0
nbclient	0.10.2
nbconvert	7.16.6
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.18
overrides	7.7.0
packaging	24.2
pandas	2.2.3
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	11.3.0
platformdirs	4.3.8
prometheus_client	0.22.0
prompt_toolkit	3.0.51
protobuf	4.25.3
psutil	7.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.11.4
pydantic_core	2.33.2

Library	Version
Pygments	2.19.1
pyparsing	3.2.3
pyspnego	0.11.2
python-dateutil	2.9.0.post0
python-json-logger	3.3.0
pytz	2025.2
PyYAML	6.0.2
pyzmq	26.4.0
raz_client	1.1.0
referencing	0.36.2
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.25.0
s3transfer	0.12.0
Send2Trash	1.8.3
setuptools	80.3.1
six	1.17.0
sniffio	1.3.1
soupsieve	2.7
stack-data	0.6.3
tenacity	9.1.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20250516
typing_extensions	4.13.2
typing-inspection	0.4.0
tzdata	2025.2
tzlocal	5.3.1
uri-template	1.3.0
urllib3	2.4.0
wcwidth	0.2.13

Library	Version
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
zstandard	0.23.0

Table 3: Packages in Python 3.13.3 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
annotated-types	0.7.0
anyio	4.9.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	3.0.0
attrs	25.3.0
beautifulsoup4	4.13.4
bitarray	2.9.3
bleach	6.2.0
boto3	1.38.18
botocore	1.38.18
certifi	2025.4.26
cffi	1.17.1
charset-normalizer	3.4.2
comm	0.2.2
contourpy	1.3.2
cryptography	44.0.3
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
cycler	0.12.1
debugpy	1.8.14
decorator	5.2.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.2.0
fastjsonschema	2.21.1
fonttools	4.58.0
fqdn	1.5.1
gssapi	1.9.0
h11	0.16.0

Library	Version
httpcore	1.0.9
httpx	0.28.1
idna	3.10
impyla	0.21.0
ipykernel	6.29.5
ipython	9.2.0
ipython-genutils	0.2.0
ipython_pygments_lexers	1.1.1
isoduration	20.11.0
jedi	0.19.2
Jinja2	3.1.6
jmespath	1.0.1
jsonpatch	1.33
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2025.4.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.12.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.16.0
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.8
krb5	0.7.1
langchain-core	0.3.60
langsmith	0.3.42
MarkupSafe	3.0.2
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.1.3
nbclassic	1.1.0
nbclient	0.10.2
nbconvert	7.16.6
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4

Library	Version
numpy	1.26.4
orjson	3.10.18
overrides	7.7.0
packaging	24.2
pandas	2.2.3
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	11.3.0
platformdirs	4.3.8
prometheus_client	0.22.0
prompt_toolkit	3.0.51
protobuf	4.25.3
psutil	7.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.11.4
pydantic_core	2.33.2
Pygments	2.19.1
pyparsing	3.2.3
pyspnego	0.11.2
python-dateutil	2.9.0.post0
python-json-logger	3.3.0
pytz	2025.2
PyYAML	6.0.2
pyzmq	26.4.0
raz_client	1.1.0
referencing	0.36.2
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.25.0
s3transfer	0.12.0
Send2Trash	1.8.3

Library	Version
setuptools	80.3.1
six	1.17.0
sniffio	1.3.1
soupsieve	2.7
stack-data	0.6.3
tenacity	9.1.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20250516
typing_extensions	4.13.2
typing-inspection	0.4.0
tzdata	2025.2
tzlocal	5.3.1
uri-template	1.3.0
urllib3	2.4.0
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
zstandard	0.23.0

Python 3.12 Libraries for Workbench

This section lists the packages in Python 3.12 Workbench Runtimes that ship with ML Runtimes 2025.09.1.

Table 4: Packages in Python 3.12.10 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0

Library	Version
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.14.2

Library	Version
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1

Library	Version
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	80.3.1
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Table 5: Packages in Python 3.12.10 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0

Library	Version
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9

Library	Version
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0

Library	Version
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	80.3.1
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2025.09.1.

Table 6: Packages in Python 3.11.12 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1

Library	Version
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0

Library	Version
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2

Library	Version
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Table 7: Packages in Python 3.11.12 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5

Library	Version
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6

Library	Version
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2

Library	Version
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2025.09.1.

Table 8: Packages in Python 3.10.17 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2

Library	Version
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.2.2
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4

Library	Version
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2

Library	Version
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Table 9: Packages in Python 3.10.17 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1

Library	Version
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.2.2
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3

Library	Version
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1

Library	Version
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2025.09.1.

Table 10: Packages in Python 3.9.22 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0

Library	Version
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib_metadata	8.4.0
importlib-resources	5.12.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.14.2

Library	Version
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7

Library	Version
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.19.1

Table 11: Packages in Python 3.9.22 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
anyio	4.7.0
argon2-cffi	23.1.0

Library	Version
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib_metadata	8.4.0
importlib-resources	5.12.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6

Library	Version
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0

Library	Version
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19

Library	Version
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.19.1

Scala 2.12 Libraries for Workbench

This section lists the packages in Scala 2.12 Workbench Runtimes that ship with ML Runtimes 2025.09.1.

Table 12: Scala 2.12 Libraries for PBJ Workbench - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3

Library	Version
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4

Library	Version
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2

Library	Version
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.13 Libraries for JupyterLab

This section lists the packages in Python 3.13 JupyterLab Runtimes that ship with ML Runtimes 2025.09.1.

Table 13: Packages in Python 3.13.3 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.6.1
aiohttp	3.11.18
aiosignal	1.3.2
aiosqlite	0.21.0
annotated-types	0.7.0
anyio	4.9.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	3.0.0
async-lru	2.0.5
attrs	25.3.0
babel	2.17.0
beautifulsoup4	4.13.4
bitarray	2.9.3
bleach	6.2.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.3
certifi	2025.4.26

Library	Version
cffi	1.17.1
charset-normalizer	3.4.2
click	8.2.0
cloudpickle	3.1.1
colorama	0.4.6
comm	0.2.2
contourpy	1.3.2
cryptography	44.0.3
cycler	0.12.1
dask	2025.5.0
dataclasses-json	0.6.7
debugpy	1.8.14
decorator	5.2.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2025.5.0
docstring-to-markdown	0.17
entrypoints	0.4
executing	2.2.0
faiss-cpu	1.11.0
fastjsonschema	2.21.1
fonttools	4.58.0
fqdn	1.5.1
frozenlist	1.6.0
fsspec	2025.3.2
gitdb	4.0.12
GitPython	3.1.44
greenlet	3.2.2
gssapi	1.9.0
h11	0.16.0
httpcore	1.0.9
httpx	0.28.1
idna	3.10
importlib_metadata	8.7.0
impyla	0.21.0
ipykernel	6.29.5
ipython	9.2.0
ipython-genutils	0.2.0
ipython_pygments_lexers	1.1.1

Library	Version
isoduration	20.11.0
jedi	0.19.2
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.12.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2025.4.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.12.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.4
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.16.0
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.8
krb5	0.7.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.26.1
matplotlib	3.9.1
matplotlib-inline	0.1.7

Library	Version
mistune	3.1.3
msgpack	1.1.0
multidict	6.4.3
mypy_extensions	1.1.0
nbclassic	1.1.0
nbclient	0.10.2
nbconvert	7.16.6
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.18
overrides	7.7.0
packaging	24.2
pandas	2.2.3
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	11.3.0
platformdirs	4.3.8
ply	3.11
prometheus_client	0.22.0
prompt_toolkit	3.0.51
propcache	0.3.1
protobuf	4.25.3
psutil	7.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.11.4
pydantic_core	2.33.2
pygls	1.3.1
Pygments	2.19.1
pyparsing	3.2.3

Library	Version
pyspnego	0.11.2
python-dateutil	2.9.0.post0
python-json-logger	3.3.0
pytz	2025.2
PyYAML	6.0.2
pyzmq	26.4.0
raz_client	1.1.0
referencing	0.36.2
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.25.0
s3transfer	0.10.4
Send2Trash	1.8.3
setuptools	80.7.1
six	1.17.0
smmap	5.0.2
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.7
SQLAlchemy	2.0.41
stack-data	0.6.3
tblib	3.1.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20250516
typing_extensions	4.13.2
typing-inspect	0.9.0
typing-inspection	0.4.0
tzdata	2025.2

Library	Version
tzlocal	5.3.1
uri-template	1.3.0
urllib3	2.4.0
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.21.0
zstandard	0.23.0

Table 14: Packages in Python 3.13.3 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiohappyeyeballs	2.6.1
aiohttp	3.11.18
aiosignal	1.3.2
aiosqlite	0.21.0
annotated-types	0.7.0
anyio	4.9.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	3.0.0
async-lru	2.0.5
attrs	25.3.0
babel	2.17.0
beautifulsoup4	4.13.4
bitarray	2.9.3
bleach	6.2.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.3
certifi	2025.4.26
cffi	1.17.1
charset-normalizer	3.4.2
click	8.2.0
cloudpickle	3.1.1

Library	Version
colorama	0.4.6
comm	0.2.2
contourpy	1.3.2
cryptography	44.0.3
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
cycler	0.12.1
dask	2025.5.0
dataclasses-json	0.6.7
debugpy	1.8.14
decorator	5.2.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2025.5.0
docstring-to-markdown	0.17
entrypoints	0.4
executing	2.2.0
faiss-cpu	1.11.0
fastjsonschema	2.21.1
fonttools	4.58.0
fqdn	1.5.1
frozenlist	1.6.0
fsspec	2025.3.2
gitdb	4.0.12
GitPython	3.1.44
greenlet	3.2.2
gssapi	1.9.0
h11	0.16.0
httpcore	1.0.9
httpx	0.28.1
idna	3.10
importlib_metadata	8.7.0
impyla	0.21.0
ipykernel	6.29.5
ipython	9.2.0
ipython-genutils	0.2.0
ipython_pygments_lexers	1.1.1
isoduration	20.11.0
jedi	0.19.2

Library	Version
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.12.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2025.4.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.12.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.4
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.16.0
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.8
krb5	0.7.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.26.1
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.1.3
msgpack	1.1.0

Library	Version
multidict	6.4.3
mypy_extensions	1.1.0
nbclassic	1.1.0
nbclient	0.10.2
nbconvert	7.16.6
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.18
overrides	7.7.0
packaging	24.2
pandas	2.2.3
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	11.3.0
platformdirs	4.3.8
ply	3.11
prometheus_client	0.22.0
prompt_toolkit	3.0.51
propcache	0.3.1
protobuf	4.25.3
psutil	7.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.11.4
pydantic_core	2.33.2
pygls	1.3.1
Pygments	2.19.1
pyparsing	3.2.3
pyspnego	0.11.2
python-dateutil	2.9.0.post0

Library	Version
python-json-logger	3.3.0
pytz	2025.2
PyYAML	6.0.2
pyzmq	26.4.0
raz_client	1.1.0
referencing	0.36.2
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.25.0
s3transfer	0.10.4
Send2Trash	1.8.3
setuptools	80.7.1
six	1.17.0
smmap	5.0.2
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.7
SQLAlchemy	2.0.41
stack-data	0.6.3
tblib	3.1.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20250516
typing_extensions	4.13.2
typing-inspect	0.9.0
typing-inspection	0.4.0
tzdata	2025.2
tzlocal	5.3.1
uri-template	1.3.0

Library	Version
urllib3	2.4.0
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.21.0
zstandard	0.23.0

Python 3.12 Libraries for JupyterLab

This section lists the packages in Python 3.12 JupyterLab Runtimes that ship with ML Runtimes 2025.09.1.

Table 15: Packages in Python 3.12.10 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2

Library	Version
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2

Library	Version
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.4
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5

Library	Version
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
propcache	0.3.1
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7

Library	Version
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	78.1.1
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1

Library	Version
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.20.1

Table 16: Packages in Python 3.12.10 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1

Library	Version
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0

Library	Version
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.4
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4

Library	Version
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
propcache	0.3.1
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3

Library	Version
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	78.1.1
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.20.1

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2025.09.1.

Table 17: Packages in Python 3.11.12 PBJ JupyterLab Runtimes - Freshline

Library	Version
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0

Library	Version
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2

Library	Version
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0

Library	Version
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4

Library	Version
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Table 18: Packages in Python 3.11.12 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0

Library	Version
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1

Library	Version
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3

Library	Version
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11

Library	Version
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0

Library	Version
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Table 19: Packages in Python 3.11.12 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0

Library	Version
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.16.0

Library	Version
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43

Library	Version
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure_eval	0.2.3

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5

Library	Version
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2025.09.1.

Table 20: Packages in Python 3.10.17 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.6.1
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0

Library	Version
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0

Library	Version
idna	3.7
importlib_metadata	7.1.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.27.2
jupyter-lsp	2.2.2
jupyter_server	2.14.1
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147

Library	Version
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
propcache	0.3.1
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2

Library	Version
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.5

Library	Version
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.20.0
zict	3.0.0
zipp	3.19.1

Table 21: Packages in Python 3.10.17 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiohappyeyeballs	2.6.1
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3

Library	Version
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.21.0

Library	Version
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.27.2
jupyter-lsp	2.2.2
jupyter_server	2.14.1
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2

Library	Version
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
propcache	0.3.1
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0

Library	Version
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2

Library	Version
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.20.0
zict	3.0.0
zipp	3.19.1

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2025.09.1.

Table 22: Packages in Python 3.9.22 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162

Library	Version
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	8.4.0
importlib-resources	5.12.0
impyla	0.21.0

Library	Version
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2

Library	Version
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt-toolkit	3.0.38
propcache	0.3.1
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0

Library	Version
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316

Library	Version
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.20.0
zict	3.0.0
zipp	3.19.1

Table 23: Packages in Python 3.9.22 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0

Library	Version
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	8.4.0
importlib-resources	5.12.0
impyla	0.21.0
ipykernel	6.29.5

Library	Version
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.21.3

Library	Version
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt-toolkit	3.0.38
propcache	0.3.1
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0

Library	Version
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2

Library	Version
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.20.0
zict	3.0.0
zipp	3.19.1

R 4.5 Libraries

This section lists the R 4.5.0 libraries that ship with ML Runtimes Runtimes 2025.06.1.

Table 24: Packages in R 4.5.0 PBJ Workbench Runtimes - Standard - Python libraries

Package	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1

Package	Version
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7

Package	Version
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	80.3.1
six	1.16.0
sniffio	1.3.1

Package	Version
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Table 25: Packages in R 4.5.0 PBJ Workbench Runtimes - Standard - R packages

Package	Version
askpass	1.2.1
base	4.5.0
base64enc	0.1-3
boot	1.3-31
Cairo	1.6-2
class	7.3-23
cli	3.6.5
cluster	2.1.8.1
codetools	0.2-20
compiler	4.5.0
crayon	1.5.3
datasets	4.5.0
digest	0.6.37
evaluate	1.0.3
fansi	1.0.6
farver	2.1.2
fastmap	1.2.0

Package	Version
foreign	0.8-90
ggplot2	3.5.2
glue	1.8.0
graphics	4.5.0
grDevices	4.5.0
grid	4.5.0
gtable	0.3.6
htmltools	0.5.8.1
IRdisplay	1.1
IRkernel	1.3.2
isoband	0.2.7
jsonlite	2.0.0
KernSmooth	2.23-26
labeling	0.4.3
lattice	0.22-6
lifecycle	1.0.4
magrittr	2.0.3
MASS	7.3-65
Matrix	1.7-3
methods	4.5.0
mgcv	1.9-1
nlme	3.1-168
nnet	7.3-20
openssl	2.3.2
parallel	4.5.0
pbdZMQ	0.3-14
pillar	1.10.2
pkgconfig	2.0.3
R6	2.6.1
RColorBrewer	1.1-3
repr	1.1.7
rlang	1.1.6
rpart	4.1.24
Rserve	1.8-15
scales	1.4.0
spatial	7.3-18
splines	4.5.0
stats	4.5.0
stats4	4.5.0

Package	Version
survival	3.8-3
sys	3.4.3
tcltk	4.5.0
tibble	3.2.1
tools	4.5.0
utf8	1.2.5
utils	4.5.0
uuid	1.2-1
vctrs	0.6.5
viridisLite	0.4.2
withr	3.0.2

Table 26: Packages in R 4.5.0 PBJ Workbench Runtimes - Freshline - Python libraries

Package	Version
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0
colorama	0.4.6

Package	Version
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.10.0

Package	Version
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.1

Package	Version
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0

Package	Version
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.18.0

Package	Version
zict	3.0.0
zipp	3.21.0

Table 27: Packages in R 4.5.0 PBJ Workbench Runtimes - Freshline - R Packages

Package	Version
askpass	1.2.1
base	4.5.0
base64enc	0.1-3
boot	1.3-31
Cairo	1.6-2
class	7.3-23
cli	3.6.5
cluster	2.1.8.1
codetools	0.2-20
compiler	4.5.0
crayon	1.5.3
datasets	4.5.0
digest	0.6.37
evaluate	1.0.3
fansi	1.0.6
farver	2.1.2
fastmap	1.2.0
foreign	0.8-90
ggplot2	3.5.2
glue	1.8.0
graphics	4.5.0
grDevices	4.5.0
grid	4.5.0
gtable	0.3.6
htmltools	0.5.8.1
IRdisplay	1.1
IRkernel	1.3.2
isoband	0.2.7
jsonlite	2.0.0
KernSmooth	2.23-26
labeling	0.4.3
lattice	0.22-6
lifecycle	1.0.4
magrittr	2.0.3

Package	Version
MASS	7.3-65
Matrix	1.7-3
methods	4.5.0
mgcv	1.9-1
nlme	3.1-168
nnet	7.3-20
openssl	2.3.2
parallel	4.5.0
pbdZMQ	0.3-14
pillar	1.10.2
pkgconfig	2.0.3
R6	2.6.1
RColorBrewer	1.1-3
repr	1.1.7
rlang	1.1.6
rpart	4.1.24
Rserve	1.8-15
scales	1.4.0
spatial	7.3-18
splines	4.5.0
stats	4.5.0
stats4	4.5.0
survival	3.8-3
sys	3.4.3
tcltk	4.5.0
tibble	3.2.1
tools	4.5.0
utf8	1.2.5
utils	4.5.0
uuid	1.2-1
vctrs	0.6.5
viridisLite	0.4.2
withr	3.0.2

ML Runtimes 2025.06.1

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2025.06.1.

Note:

All images are now based on Ubuntu 24.04.

Spark and Python Supportability

Specific Python versions are compatible with specific Spark versions. For detailed information about the compatibility levels for various Python versions across different Spark releases, see Spark Python Supportability Matrix.

Python 3.12 Libraries for Conda

This section lists the packages in Python 3.12 Conda Runtimes that ship with ML Runtimes 2025.06.1.

Table 28: Packages in Python 3.12.10 PBJ Conda Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2

Library	Version
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1

Library	Version
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.51.1
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7

Library	Version
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
propcache	0.3.1
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4

Library	Version
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.20.1

Python 3.13 Libraries for Workbench

This section lists the packages in Python 3.13 Workbench Runtimes that ship with ML Runtimes 2025.06.1.

Table 29: Packages in Python 3.13.3 PBJ Workbench Runtimes - Standard

Library	Version
annotated-types	0.7.0
anyio	4.9.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	3.0.0
attrs	25.3.0
beautifulsoup4	4.13.4
bitarray	2.9.3
bleach	6.2.0
boto3	1.38.18
botocore	1.38.18
certifi	2025.4.26
cffi	1.17.1
charset-normalizer	3.4.2
comm	0.2.2
contourpy	1.3.2
cryptography	44.0.3
cycler	0.12.1
debugpy	1.8.14
decorator	5.2.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.2.0
fastjsonschema	2.21.1
fonttools	4.58.0
fqdn	1.5.1
gssapi	1.9.0
h11	0.16.0
httpcore	1.0.9
httpx	0.28.1
idna	3.10
impyla	0.21.0
ipykernel	6.29.5

Library	Version
ipython	9.2.0
ipython-genutils	0.2.0
ipython_pygments_lexers	1.1.1
isoduration	20.11.0
jedi	0.19.2
Jinja2	3.1.6
jmespath	1.0.1
jsonpatch	1.33
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2025.4.1
jupyter-events	0.12.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.16.0
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.8
krb5	0.7.1
langchain-core	0.3.60
langsmith	0.3.42
MarkupSafe	3.0.2
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.1.3
nbclassic	1.3.1
nbclient	0.10.2
nbconvert	7.16.6
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.18
overrides	7.7.0
packaging	24.2
pandas	2.2.3

Library	Version
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	11.2.1
platformdirs	4.3.8
prometheus_client	0.22.0
prompt_toolkit	3.0.51
protobuf	4.25.3
psutil	7.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.11.4
pydantic_core	2.33.2
Pygments	2.19.1
pyparsing	3.2.3
pyspnego	0.11.2
python-dateutil	2.9.0.post0
python-json-logger	3.3.0
pytz	2025.2
PyYAML	6.0.2
pyzmq	26.4.0
raz_client	1.1.0
referencing	0.36.2
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.25.0
s3transfer	0.12.0
Send2Trash	1.8.3
setuptools	80.3.1
six	1.17.0
sniffio	1.3.1
soupsieve	2.7
stack-data	0.6.3

Library	Version
tenacity	9.1.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20250516
typing-inspection	0.4.0
typing_extensions	4.13.2
tzdata	2025.2
tzlocal	5.3.1
uri-template	1.3.0
urllib3	2.4.0
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
zstandard	0.23.0

Table 30: Packages in Python 3.13.3 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
annotated-types	0.7.0
anyio	4.9.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	3.0.0
attrs	25.3.0
beautifulsoup4	4.13.4
bitarray	2.9.3
bleach	6.2.0
boto3	1.38.18
botocore	1.38.18
certifi	2025.4.26

Library	Version
cffi	1.17.1
charset-normalizer	3.4.2
comm	0.2.2
contourpy	1.3.2
cryptography	44.0.3
cycler	0.12.1
debugpy	1.8.14
decorator	5.2.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.2.0
fastjsonschema	2.21.1
fonttools	4.58.0
fqdn	1.5.1
gssapi	1.9.0
h11	0.16.0
httpcore	1.0.9
httpx	0.28.1
idna	3.10
impyla	0.21.0
ipykernel	6.29.5
ipython	9.2.0
ipython-genutils	0.2.0
ipython_pygments_lexers	1.1.1
isoduration	20.11.0
jedi	0.19.2
Jinja2	3.1.6
jmespath	1.0.1
jsonpatch	1.33
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2025.4.1
jupyter-events	0.12.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.16.0
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0

Library	Version
kerberos	1.3.1
kiwisolver	1.4.8
krb5	0.7.1
langchain-core	0.3.60
langsmith	0.3.42
MarkupSafe	3.0.2
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.1.3
nbclassic	1.3.1
nbclient	0.10.2
nbconvert	7.16.6
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.18
overrides	7.7.0
packaging	24.2
pandas	2.2.3
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	11.2.1
platformdirs	4.3.8
prometheus_client	0.22.0
prompt_toolkit	3.0.51
protobuf	4.25.3
psutil	7.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.11.4
pydantic_core	2.33.2
Pygments	2.19.1
pyparsing	3.2.3

Library	Version
pyspnego	0.11.2
python-dateutil	2.9.0.post0
python-json-logger	3.3.0
pytz	2025.2
PyYAML	6.0.2
pyzmq	26.4.0
raz_client	1.1.0
referencing	0.36.2
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.25.0
s3transfer	0.12.0
Send2Trash	1.8.3
setuptools	80.3.1
six	1.17.0
sniffio	1.3.1
soupsieve	2.7
stack-data	0.6.3
tenacity	9.1.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20250516
typing-inspection	0.4.0
typing_extensions	4.13.2
tzdata	2025.2
tzlocal	5.3.1
uri-template	1.3.0
urllib3	2.4.0
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1

Library	Version
websocket-client	1.8.0
wheel	0.45.1
zstandard	0.23.0

Python 3.12 Libraries for Workbench

This section lists the packages in Python 3.12 Workbench Runtimes that ship with ML Runtimes 2025.06.1.

Table 31: Packages in Python 3.12.10 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0

Library	Version
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0

Library	Version
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	80.3.1
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0

Library	Version
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Table 32: Packages in Python 3.12.10 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0

Library	Version
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1

Library	Version
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	80.3.1
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0

Library	Version
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2025.06.1.

Table 33: Packages in Python 3.11.12 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1

Library	Version
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4

Library	Version
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3

Library	Version
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Table 34: Packages in Python 3.11.12 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0

Library	Version
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7

Library	Version
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4

Library	Version
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2025.06.1.

Table 35: Packages in Python 3.10.17 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0

Library	Version
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1

Library	Version
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2

Library	Version
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Table 36: Packages in Python 3.10.17 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0

Library	Version
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0

Library	Version
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2

Library	Version
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2025.06.1.

Table 37: Packages in Python 3.9.22 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5

Library	Version
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0

Library	Version
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316

Library	Version
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.19.1

Table 38: Packages in Python 3.9.22 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2

Library	Version
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4

Library	Version
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1

Library	Version
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.19.1

Scala 2.12 Libraries for Workbench

This section lists the packages in Scala 2.12 Workbench Runtimes that ship with ML Runtimes 2025.06.1.

Table 39: Scala 2.12 Libraries for PBJ Workbench - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4

Library	Version
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1

Library	Version
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0

Library	Version
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.13 Libraries for JupyterLab

This section lists the packages in Python 3.13 JupyterLab Runtimes that ship with ML Runtimes 2025.06.1.

Table 40: Packages in Python 3.13.3 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.6.1
aiohttp	3.11.18
aiosignal	1.3.2
aiosqlite	0.21.0
annotated-types	0.7.0

Library	Version
anyio	4.9.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	3.0.0
async-lru	2.0.5
attrs	25.3.0
babel	2.17.0
beautifulsoup4	4.13.4
bitarray	2.9.3
bleach	6.2.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.3
certifi	2025.4.26
cffi	1.17.1
charset-normalizer	3.4.2
click	8.2.0
cloudpickle	3.1.1
colorama	0.4.6
comm	0.2.2
contourpy	1.3.2
cryptography	44.0.3
cycler	0.12.1
dask	2025.5.0
dataclasses-json	0.6.7
debugpy	1.8.14
decorator	5.2.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2025.5.0
docstring-to-markdown	0.17
entrypoints	0.4
executing	2.2.0
faiss-cpu	1.11.0
fastjsonschema	2.21.1
fonttools	4.58.0
fqdn	1.5.1
frozenlist	1.6.0

Library	Version
fsspec	2025.3.2
gitdb	4.0.12
GitPython	3.1.44
greenlet	3.2.2
gssapi	1.9.0
h11	0.16.0
httpcore	1.0.9
httpx	0.28.1
idna	3.10
importlib_metadata	8.7.0
impyla	0.21.0
ipykernel	6.29.5
ipython	9.2.0
ipython-genutils	0.2.0
ipython_pygments_lexers	1.1.1
isoduration	20.11.0
jedi	0.19.2
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.12.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2025.4.1
jupyter-events	0.12.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.16.0
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3

Library	Version
kerberos	1.3.1
kiwisolver	1.4.8
krb5	0.7.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.26.1
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.1.3
msgpack	1.1.0
multidict	6.4.3
mypy_extensions	1.1.0
nbclassic	1.3.1
nbclient	0.10.2
nbconvert	7.16.6
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.18
overrides	7.7.0
packaging	24.2
pandas	2.2.3
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	11.2.1
platformdirs	4.3.8
ply	3.11

Library	Version
prometheus_client	0.22.0
prompt_toolkit	3.0.51
propcache	0.3.1
protobuf	4.25.3
psutil	7.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.11.4
pydantic_core	2.33.2
pygls	1.3.1
Pygments	2.19.1
pyparsing	3.2.3
pyspnego	0.11.2
python-dateutil	2.9.0.post0
python-json-logger	3.3.0
pytz	2025.2
PyYAML	6.0.2
pyzmq	26.4.0
raz_client	1.1.0
referencing	0.36.2
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.25.0
s3transfer	0.10.4
Send2Trash	1.8.3
setuptools	80.7.1
six	1.17.0
smmap	5.0.2
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.7
SQLAlchemy	2.0.41
stack-data	0.6.3

Library	Version
tblib	3.1.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20250516
typing-inspect	0.9.0
typing-inspection	0.4.0
typing_extensions	4.13.2
tzdata	2025.2
tzlocal	5.3.1
uri-template	1.3.0
urllib3	2.4.0
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.21.0
zstandard	0.23.0

Table 41: Packages in Python 3.13.3 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.6.1
aiohttp	3.11.18
aiosignal	1.3.2
aiosqlite	0.21.0
annotated-types	0.7.0
anyio	4.9.0
argon2-cffi	23.1.0

Library	Version
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	3.0.0
async-lru	2.0.5
attrs	25.3.0
babel	2.17.0
beautifulsoup4	4.13.4
bitarray	2.9.3
bleach	6.2.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.3
certifi	2025.4.26
cffi	1.17.1
charset-normalizer	3.4.2
click	8.2.0
cloudpickle	3.1.1
colorama	0.4.6
comm	0.2.2
contourpy	1.3.2
cryptography	44.0.3
cycler	0.12.1
dask	2025.5.0
dataclasses-json	0.6.7
debugpy	1.8.14
decorator	5.2.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2025.5.0
docstring-to-markdown	0.17
entrypoints	0.4
executing	2.2.0
faiss-cpu	1.11.0
fastjsonschema	2.21.1
fonttools	4.58.0
fqdn	1.5.1
frozenlist	1.6.0
fsspec	2025.3.2
gitdb	4.0.12

Library	Version
GitPython	3.1.44
greenlet	3.2.2
gssapi	1.9.0
h11	0.16.0
httpcore	1.0.9
httpx	0.28.1
idna	3.10
importlib_metadata	8.7.0
impyla	0.21.0
ipykernel	6.29.5
ipython	9.2.0
ipython-genutils	0.2.0
ipython_pygments_lexers	1.1.1
isoduration	20.11.0
jedi	0.19.2
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.12.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2025.4.1
jupyter-events	0.12.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.16.0
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.8

Library	Version
krb5	0.7.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.26.1
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.1.3
msgpack	1.1.0
multidict	6.4.3
mypy_extensions	1.1.0
nbclassic	1.3.1
nbclient	0.10.2
nbconvert	7.16.6
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.18
overrides	7.7.0
packaging	24.2
pandas	2.2.3
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	11.2.1
platformdirs	4.3.8
ply	3.11
prometheus_client	0.22.0
prompt_toolkit	3.0.51

Library	Version
propcache	0.3.1
protobuf	4.25.3
psutil	7.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.11.4
pydantic_core	2.33.2
pygls	1.3.1
Pygments	2.19.1
pyparsing	3.2.3
pyspnego	0.11.2
python-dateutil	2.9.0.post0
python-json-logger	3.3.0
pytz	2025.2
PyYAML	6.0.2
pyzmq	26.4.0
raz_client	1.1.0
referencing	0.36.2
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.25.0
s3transfer	0.10.4
Send2Trash	1.8.3
setuptools	80.7.1
six	1.17.0
smmap	5.0.2
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.7
SQLAlchemy	2.0.41
stack-data	0.6.3
tblib	3.1.0
tenacity	8.5.0

Library	Version
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20250516
typing-inspect	0.9.0
typing-inspection	0.4.0
typing_extensions	4.13.2
tzdata	2025.2
tzlocal	5.3.1
uri-template	1.3.0
urllib3	2.4.0
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.21.0
zstandard	0.23.0

Python 3.12 Libraries for JupyterLab

This section lists the packages in Python 3.12 JupyterLab Runtimes that ship with ML Runtimes 2025.06.1.

Table 42: Packages in Python 3.12.10 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0

Library	Version
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11

Library	Version
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.51.1
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0

Library	Version
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
propcache	0.3.1

Library	Version
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0

Library	Version
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.20.1

Table 43: Packages in Python 3.12.10 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.4.0
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0

Library	Version
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2

Library	Version
idna	3.7
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.51.1
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114

Library	Version
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
propcache	0.3.1
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5

Library	Version
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0

Library	Version
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.20.0
zict	3.0.0
zipp	3.20.1

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2025.06.1.

Table 44: Packages in Python 3.11.12 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162

Library	Version
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.21.0
ipykernel	6.29.5

Library	Version
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.51.1
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1

Library	Version
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1

Library	Version
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3

Library	Version
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Table 45: Packages in Python 3.11.12 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0

Library	Version
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.6
jmespath	1.0.1

Library	Version
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.51.1
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0

Library	Version
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2

Library	Version
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Library	Version
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2025.06.1.

Table 46: Packages in Python 3.10.17 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.6.1
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7

Library	Version
cryptography	44.0.1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33

Library	Version
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.51.1
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0

Library	Version
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
propcache	0.3.1
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0

Library	Version
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.20.0

Library	Version
zict	3.0.0
zipp	3.19.1

Table 47: Packages in Python 3.10.17 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.6.1
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.5.0

Library	Version
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0

Library	Version
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.51.1
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6

Library	Version
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
propcache	0.3.1
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3

Library	Version
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.20.0
zict	3.0.0
zipp	3.19.1

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2025.06.1.

Table 48: Packages in Python 3.9.22 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9

Library	Version
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1

Library	Version
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.51.1
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4

Library	Version
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt-toolkit	3.0.38
propcache	0.3.1
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0

Library	Version
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.20.0
zict	3.0.0
zipp	3.19.1

Table 49: Packages in Python 3.9.22 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.3.4
aiohttp	3.10.11
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0

Library	Version
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.6
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2

Library	Version
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.51.1
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4

Library	Version
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt-toolkit	3.0.38
propcache	0.3.1
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4

Library	Version
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.20.0
zict	3.0.0
zipp	3.19.1

R 4.5 Libraries

This section lists the R 4.5.0 libraries that ship with ML Runtimes Runtimes 2025.06.1.

Table 50: Packages in R 4.5.0 PBJ Workbench Runtimes - Standard - Python libraries

Package	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.6
jmespath	1.0.1
jsonpointer	3.0.0

Package	Version
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3

Package	Version
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	80.3.1
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1

Package	Version
websocket-client	1.8.0
wheel	0.45.1

Table 51: Packages in R 4.5.0 PBJ Workbench Runtimes - Standard - R packages

Package	Version
askpass	1.2.1
base	4.5.0
base64enc	0.1-3
boot	1.3-31
Cairo	1.6-2
class	7.3-23
cli	3.6.5
cluster	2.1.8.1
codetools	0.2-20
compiler	4.5.0
crayon	1.5.3
datasets	4.5.0
diges	v0.6.37
evaluate	1.0.3
fansi	1.0.6
farver	2.1.2
fastmap	1.2.0
foreign	0.8-90
ggplot2	3.5.2
glue	1.8.0
graphics	4.5.0
grDevices	4.5.0
grid	4.5.0
gtable	0.3.6
htmltools	0.5.8.1
IRdisplay	1.1
IRkernel	1.3.2
isoband	0.2.7
jsonlite	2.0.0
KernSmooth	2.23-26
labeling	0.4.3
lattice	0.22-6
lifecycle	1.0.4
magrittr	2.0.3

Package	Version
MASS	7.3-65
Matrix	1.7-3
methods	4.5.0
mgcv	1.9-1
nlme	3.1-168
nnet	7.3-20
openssl	2.3.2
parallel	4.5.0
pbdZMQ	0.3-14
pillar	1.10.2
pkgconfig	2.0.3
R6	2.6.1
RColorBrewer	1.1-3
repr	1.1.7
rlang	1.1.6
rpart	4.1.24
Rserve	1.8-15
scales	1.4.0
spatial	7.3-18
splines	4.5.0
stats	4.5.0
stats4	4.5.0
survival	3.8-3
sys	3.4.3
tcltk	4.5.0
tibble	3.2.1
tools	4.5.0
utf8	1.2.5
utils	4.5.0
uuid	1.2-1
vctrs	0.6.5
viridisLite	0.4.2
withr	3.0.2

ML Runtimes 2025.01.3

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2025.01.3.

Note:

All images are now based on Ubuntu 24.04.

Spark and Python Supportability

Specific Python versions are compatible with specific Spark versions. For detailed information about the compatibility levels for various Python versions across different Spark releases, see Spark Python Supportability Matrix.

Python 3.12 Libraries for Conda

This section lists the packages in Python 3.12 Conda Runtimes that ship with ML Runtimes 2025.01.3.

Table 52: Packages in Python 3.12.8 PBJ Conda Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2

Library	Version
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1

Library	Version
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7

Library	Version
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1

Library	Version
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.12 Libraries for Workbench

This section lists the packages in Python 3.12 Workbench Runtimes that ship with ML Runtimes 2025.01.3.

Table 53: Packages in Python 3.12.8 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0

Library	Version
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3

Library	Version
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1

Library	Version
websocket-client	1.8.0
wheel	0.45.1

Table 54: Packages in Python 3.12.8 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0

Library	Version
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47

Library	Version
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2

Library	Version
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2025.01.3.

Table 55: Packages in Python 3.11.11 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3

Library	Version
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4

Library	Version
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0

Library	Version
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Table 56: Packages in Python 3.11.11 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1

Library	Version
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4

Library	Version
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3

Library	Version
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2025.01.3.

Table 57: Packages in Python 3.10.16 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2

Library	Version
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6

Library	Version
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0

Library	Version
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Table 58: Packages in Python 3.10.16 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3

Library	Version
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.2.2

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1

Library	Version
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2025.01.3.

Table 59: Packages in Python 3.9.21 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0

Library	Version
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1

Library	Version
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0

Library	Version
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5

Library	Version
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

Table 60: Packages in Python 3.9.21 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7

Library	Version
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1

Library	Version
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0

Library	Version
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

Scala 2.12 Libraries for Workbench

This section lists the packages in Scala 2.12 Workbench Runtimes that ship with ML Runtimes 2025.01.3.

Table 61: Scala 2.12 Libraries for PBJ Workbench - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1

Library	Version
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4

Library	Version
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0

Library	Version
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.12 Libraries for JupyterLab

This section lists the packages in Python 3.12 JupyterLab Runtimes that ship with ML Runtimes 2025.01.3.

Table 62: Packages in Python 3.12.8 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4

Library	Version
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0

Library	Version
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43

Library	Version
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3

Library	Version
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3

Library	Version
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Table 63: Packages in Python 3.12.8 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4

Library	Version
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0

Library	Version
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2

Library	Version
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0

Library	Version
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13

Library	Version
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2025.01.3.

Table 64: Packages in Python 3.11.11 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0
colorama	0.4.6

Library	Version
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.7
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.10.0

Library	Version
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.1

Library	Version
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0

Library	Version
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.18.0

Library	Version
zict	3.0.0
zipp	3.21.0

Table 65: Packages in Python 3.11.11 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0

Library	Version
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.7
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6

Library	Version
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0

Library	Version
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4

Library	Version
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2025.01.3.

Table 66: Packages in Python 3.10.16 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0

Library	Version
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9

Library	Version
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2

Library	Version
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3

Library	Version
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Table 67: Packages in Python 3.10.16 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.7.0

Library	Version
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0

Library	Version
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0

Library	Version
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0

Library	Version
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2

Library	Version
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2025.01.3.

Table 68: Packages in Python 3.9.21 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0

Library	Version
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1

Library	Version
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.21.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6

Library	Version
ply	3.11
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0

Library	Version
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Table 69: Packages in Python 3.9.21 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1

Library	Version
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11

Library	Version
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.4

Library	Version
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1

Library	Version
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1

Library	Version
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

R 4.4 Libraries

This section lists the R 4.4.0 libraries that ship with ML Runtimes Runtimes 2025.01.3.

Table 70: Packages in R 4.4.0 PBJ Workbench Runtimes - Standard - R packages

Package	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146

Package	Version
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.21.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0

Package	Version
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1

Package	Version
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Table 71: Packages in R 4.4.0 PBJ Workbench Runtimes - Standard - Python libraries

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3

Library	Version
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0

Library	Version
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2

Library	Version
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

ML Runtimes 2025.01.2

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2025.01.2.

Note:

All images are now based on Ubuntu 24.04.

Spark and Python Supportability

Specific Python versions are compatible with specific Spark versions. For detailed information about the compatibility levels for various Python versions across different Spark releases, see Spark Python Supportability Matrix.

Python 3.12 Libraries for Conda

This section lists the packages in Python 3.12 Conda Runtimes that ship with ML Runtimes 2025.01.2.

Table 72: Packages in Python 3.12.8 PBJ Conda Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2

Library	Version
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1

Library	Version
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7

Library	Version
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1

Library	Version
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.12 Libraries for Workbench

This section lists the packages in Python 3.12 Workbench Runtimes that ship with ML Runtimes 2025.01.2.

Table 73: Packages in Python 3.12.8 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0

Library	Version
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3

Library	Version
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1

Library	Version
websocket-client	1.8.0
wheel	0.45.1

Table 74: Packages in Python 3.12.8 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0

Library	Version
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47

Library	Version
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2

Library	Version
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2025.01.2.

Table 75: Packages in Python 3.11.11 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3

Library	Version
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4

Library	Version
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0

Library	Version
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Table 76: Packages in Python 3.11.11 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1

Library	Version
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4

Library	Version
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3

Library	Version
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2025.01.2.

Table 77: Packages in Python 3.10.16 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2

Library	Version
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6

Library	Version
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0

Library	Version
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Table 78: Packages in Python 3.10.16 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3

Library	Version
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.2.2

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1

Library	Version
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2025.01.2.

Table 79: Packages in Python 3.9.21 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0

Library	Version
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1

Library	Version
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0

Library	Version
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5

Library	Version
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

Table 80: Packages in Python 3.9.21 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7

Library	Version
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1

Library	Version
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0

Library	Version
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

Scala 2.12 Libraries for Workbench

This section lists the packages in Scala 2.12 Workbench Runtimes that ship with ML Runtimes 2025.01.2.

Table 81: Scala 3.12 Libraries for PBJ Workbench - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1

Library	Version
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4

Library	Version
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0

Library	Version
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.12 Libraries for JupyterLab

This section lists the packages in Python 3.12 JupyterLab Runtimes that ship with ML Runtimes 2025.01.2.

Table 82: Packages in Python 3.12.8 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4

Library	Version
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0

Library	Version
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43

Library	Version
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3

Library	Version
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3

Library	Version
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Table 83: Packages in Python 3.12.8 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146

Library	Version
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0

Library	Version
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1

Library	Version
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2

Library	Version
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0

Library	Version
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2025.01.2.

Table 84: Packages in Python 3.11.11 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7

Library	Version
cloudpickle	3.1.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.7
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5

Library	Version
jmespath	1.0.1
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0

Library	Version
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1

Library	Version
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1

Library	Version
websocket-client	1.8.0
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Table 85: Packages in Python 3.11.11 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.11.2

Library	Version
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.7
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1

Library	Version
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7

Library	Version
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0

Library	Version
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2025.01.2.

Table 86: Packages in Python 3.10.16 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0

Library	Version
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9

Library	Version
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2

Library	Version
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3

Library	Version
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Table 87: Packages in Python 3.10.16 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0

Library	Version
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0

Library	Version
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0

Library	Version
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0

Library	Version
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4

Library	Version
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2025.01.2.

Table 88: Packages in Python 3.9.21 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0

Library	Version
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0

Library	Version
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0

Library	Version
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5

Library	Version
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31

Library	Version
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Table 89: Packages in Python 3.9.21 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0

Library	Version
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1

Library	Version
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6

Library	Version
ply	3.11
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0

Library	Version
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

R 4.4 Libraries

This section lists the R 4.4.0 libraries that ship with ML Runtimes Runtimes 2025.01.2.

Table 90: Packages in R 4.4.0 PBJ Workbench Runtimes - Standard - Python libraries

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2

Library	Version
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1

Library	Version
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3

Library	Version
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

ML Runtimes 2025.01.1

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2025.01.1.

Note:

All images are now based on Ubuntu 24.04.

Spark and Python Supportability

Specific Python versions are compatible with specific Spark versions. For detailed information about the compatibility levels for various Python versions across different Spark releases, see Spark Python Supportability Matrix.

Python 3.12 Libraries for Conda

This section lists the packages in Python 3.12 Conda Runtimes that ship with ML Runtimes 2025.01.1.

Table 91: Packages in Python 3.12.8 PBJ Conda Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
dask	2024.8.2

Library	Version
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1

Library	Version
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7

Library	Version
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1

Library	Version
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.12 Libraries for Workbench

This section lists the packages in Python 3.12 Workbench Runtimes that ship with ML Runtimes 2025.01.1.

Table 92: Packages in Python 3.12.8 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0

Library	Version
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3

Library	Version
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1

Library	Version
websocket-client	1.8.0
wheel	0.45.1

Table 93: Packages in Python 3.12.8 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0

Library	Version
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47

Library	Version
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2

Library	Version
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2025.01.1.

Table 94: Packages in Python 3.11.11 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	42.0.8
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3

Library	Version
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4

Library	Version
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0

Library	Version
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Table 95: Packages in Python 3.11.11 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.0
cryptography	42.0.8
cycler	0.12.1
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1

Library	Version
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4

Library	Version
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt_toolkit	3.0.48
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3

Library	Version
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2025.01.1.

Table 96: Packages in Python 3.10.16 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2

Library	Version
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.3
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6

Library	Version
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0

Library	Version
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Table 97: Packages in Python 3.10.16 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	24.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3

Library	Version
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.3
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.2.2

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1

Library	Version
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2025.01.1.

Table 98: Packages in Python 3.9.21 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.7.0

Library	Version
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1

Library	Version
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0

Library	Version
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5

Library	Version
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

Table 99: Packages in Python 3.9.21 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.8.9
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7

Library	Version
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	3.0.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1

Library	Version
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.2
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0

Library	Version
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

Scala 2.12 Libraries for Workbench

This section lists the packages in Scala 2.12 Workbench Runtimes that ship with ML Runtimes 2025.01.1.

Table 100: Scala 2.12 Libraries for PBJ Workbench - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1

Library	Version
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4

Library	Version
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0

Library	Version
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.12 Libraries for JupyterLab

This section lists the packages in Python 3.12 JupyterLab Runtimes that ship with ML Runtimes 2025.01.1.

Table 101: Packages in Python 3.12.8 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4

Library	Version
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0

Library	Version
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43

Library	Version
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3

Library	Version
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3

Library	Version
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Table 102: Packages in Python 3.12.8 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146

Library	Version
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0

Library	Version
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1

Library	Version
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2

Library	Version
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0

Library	Version
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2024.10.1.

Table 103: Packages in Python 3.11.11 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7

Library	Version
cloudpickle	3.1.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	42.0.8
cycler	0.12.1
dask	2024.11.2
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.7
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.4

Library	Version
jmespath	1.0.1
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0

Library	Version
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1

Library	Version
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1

Library	Version
websocket-client	1.8.0
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Table 104: Packages in Python 3.11.11 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.4.3
aiohttp	3.11.8
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.162
botocore	1.34.162
cattrs	24.1.2
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.1.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.0
cryptography	42.0.8
cycler	0.12.1
dask	2024.11.2

Library	Version
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.11.2
docstring-to-markdown	0.15
entrypoints	0.4
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.5.0
fsspec	2024.10.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.1.1
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.7
httpx	0.27.2
idna	3.7
importlib_metadata	8.5.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.30.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.4
jmespath	1.0.1
json5	0.10.0
jsonpatch	1.33
jsonpath-ng	1.7.0
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2024.10.1

Library	Version
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.23.1
matplotlib	3.7.0
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.1.0
multidict	6.1.0
mypy-extensions	1.0.0
nbclassic	1.1.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7

Library	Version
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.12
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt_toolkit	3.0.48
propcache	0.2.0
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.10.2
pydantic_core	2.27.1
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0

Library	Version
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.4
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.36
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
toolz	1.0.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.18.0
zict	3.0.0
zipp	3.21.0

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2025.01.1.

Table 105: Packages in Python 3.10.16 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0

Library	Version
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9

Library	Version
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2

Library	Version
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3

Library	Version
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Table 106: Packages in Python 3.10.16 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0

Library	Version
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	24.2.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0

Library	Version
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0

Library	Version
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbdime	4.0.1
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0

Library	Version
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	26.2.0
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4

Library	Version
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2025.01.1.

Table 107: Packages in Python 3.9.21 PBJ JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0

Library	Version
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0

Library	Version
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0

Library	Version
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5

Library	Version
pillow	10.3.0
platformdirs	4.3.6
ply	3.11
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31

Library	Version
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Table 108: Packages in Python 3.9.21 PBJ JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-5	12.5.1-1
cuda-libraries-dev-12-5	12.5.1-1
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.7.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0

Library	Version
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.2.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.8.9
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.21.1
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1

Library	Version
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.29.5
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	3.0.2
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclassic	1.0.0
nbclient	0.10.1
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.4
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.6

Library	Version
ply	3.11
prometheus_client	0.21.1
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	6.1.0
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0

Library	Version
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.4.0
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

R 4.4 Libraries

This section lists the R 4.4.0 libraries that ship with ML Runtimes Runtimes 2025.01.1.

Table 109: Packages in R 4.4.0 PBJ Workbench Runtimes - Standard - R packages

Package	Version
askpass	1.2.0
base	4.4.0
base64enc	0.1-3
boot	1.3-30
Cairo	1.6-2
class	7.3-22
cli	3.6.2

Package	Version
cluster	2.1.6
codetools	0.2-20
colorspace	2.1-0
compiler	4.4.0
crayon	1.5.3
datasets	4.4.0
digest	0.6.37
evaluate	1.0.1
fansi	1.0.6
farver	2.1.1
fastmap	1.2.0
foreign	0.8-86
ggplot2	3.5.1
glue	1.7.0
graphics	4.4.0
grDevices	4.4.0
grid	4.4.0
gtable	0.3.5
htmltools	0.5.8.1
IRdisplay	1.1
IRkernel	1.3.2
isoband	0.2.7
jsonlite	1.8.9
KernSmooth	2.23-22
labeling	0.4.3
lattice	0.22-6
lifecycle	1.0.4
magrittr	2.0.3
MASS	7.3-60.2
Matrix	1.7-0
methods	4.4.0
mgcv	1.9-1

Package	Version
munsell	0.5.1
nlme	3.1-164
nnet	7.3-19
openssl	2.1.2
parallel	4.4.0
pbdZMQ	0.3-13
pillar	1.9.0
pkgconfig	2.0.3
R6	2.5.1
RColorBrewer	1.1-3
repr	1.1.7
rlang	1.1.3
rpart	4.1.23
Rserve	1.8-13
scales	1.3.0
spatial	7.3-17
splines	4.4.0
stats	4.4.0
stats4	4.4.0
survival	3.5-8
sys	3.4.2
tcltk	4.4.0
tibble	3.2.1
tools	4.4.0
utf8	1.2.4
utils	4.4.0
uuid	1.2-1
vctrs	0.6.5
viridisLite	0.4.2
withr	3.0.0

Table 110: Packages in R 4.4.0 PBJ Workbench Runtimes - Standard - Python libraries

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	24.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0

Library	Version
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5

Library	Version
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.22.3
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	75.6.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.6
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20241206
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.11.1
webencodings	0.5.1
websocket-client	1.8.0

Library	Version
wheel	0.45.1

ML Runtimes 2024.10.2

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2024.10.2.

Note:

Nvidia GPU Editions with a Workbench Editor come with Python 3.7, 3.8 and 3.9, CUDA 11.4.1-1 and cuDNN 8.2.2.26 versions preinstalled.

Nvidia GPU Editions with JupyterLab or with PBJ Workbench Editor and with Python 3.7 come with CUDA 11.8.0-1 and cuDNN 8.7.0.84 versions preinstalled.

All the other Nvidia GPU Edition Runtimes come with CUDA 12.3.2-1 and cuDNN 9.0.0.312 versions preinstalled.

Spark and Python Supportability

Specific Python versions are compatible with specific Spark versions. For detailed information about the compatibility levels for various Python versions across different Spark releases, see Spark Python Supportability Matrix.

Python 3.10 Libraries for Conda

This section lists the packages in Python 3.10 Conda Runtimes that ship with ML Runtimes 2024.10.2.

Table 111: Packages in Python 3.10.17 Conda Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3

Library	Version
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7

Library	Version
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.27.2
jupyter-lsp	2.2.2
jupyter_server	2.14.1
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2

Library	Version
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.34.0
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2

Library	Version
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.19.1

Python 3.12 Libraries for Workbench

This section lists the packages in Python 3.12 Workbench Runtimes that ship with ML Runtimes 2024.10.2.

Table 112: Packages in Python 3.12.10 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1

Library	Version
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0

Library	Version
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.0
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	78.1.1
six	1.16.0
sniffio	1.3.1
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.1

Library	Version
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Table 113: Packages in Python 3.12.10 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1

Library	Version
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab_pygments	0.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1

Library	Version
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1

Library	Version
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.0
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	78.1.1
six	1.16.0
sniffio	1.3.1
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2024.10.2.

Table 114: Packages in Python 3.11.12 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0

Library	Version
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.0
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.26.0
ipython	8.17.2
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.9.0

Library	Version
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.2.2
jupyter_server	2.14.1
jupyter_server_terminals	0.4.4
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.6
notebook_shim	0.2.3
numpy	1.26.4
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pillow	10.3.0
platformdirs	4.0.0
prometheus-client	0.18.0
prompt-toolkit	3.0.41
protobuf	4.25.3
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.16.1
pyparsing	3.1.1
pyspnego	0.11.0

Library	Version
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	24.0.1
raz_client	1.1.0
referencing	0.31.0
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.0
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.5
traitlets	5.13.0
trino	0.330.0
types-python-dateutil	2.8.19.14
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.10
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Table 115: Packages in Python 3.11.12 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1

Library	Version
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
anyio	4.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.0
contourpy	1.2.0
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.26.0
ipython	8.17.2
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.5

Library	Version
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.2.2
jupyter_server	2.14.1
jupyter_server_terminals	0.4.4
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.6
notebook_shim	0.2.3
numpy	1.26.4
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pillow	10.3.0
platformdirs	4.0.0
prometheus-client	0.18.0

Library	Version
prompt-toolkit	3.0.41
protobuf	4.25.3
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.16.1
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	24.0.1
raz_client	1.1.0
referencing	0.31.0
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.0
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.5
traitlets	5.13.0
trino	0.330.0
types-python-dateutil	2.8.19.14
tzdata	2023.3
tzlocal	5.2

Library	Version
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.10
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2024.10.2.

Table 116: Packages in Python 3.10.17 Workbench Runtimes - Standard

Library	Version
asttokens	2.2.1
backcall	0.2.0
bitarray	2.7.3
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.8.1

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.26.4
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.5
traitlets	5.9.0
trino	0.330.0

Library	Version
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18
wcwidth	0.2.5

Table 117: Packages in Python 3.10.17 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	22.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.6.6
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0

Library	Version
isoduration	20.11.0
jedi	0.18.2
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.18.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.2.2
jupyter_server	2.14.1
jupyter_server_terminals	0.4.4
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.2.0
prometheus-client	0.16.0

Library	Version
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.0.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2

Library	Version
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Table 118: Packages in Python 3.10.17 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	22.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.11.0
debugpy	1.6.6
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1

Library	Version
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.18.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.9
jupyter_core	5.8.1
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.2.2
jupyter_server	2.14.1
jupyter_server_terminals	0.4.4
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4

Library	Version
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.2.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.0.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1

Library	Version
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2024.10.2.

Table 119: Packages in Python 3.9.22 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0

Library	Version
gssapi	1.8.3
idna	3.7
importlib_metadata	7.1.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.8.1
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.26.4
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2

Library	Version
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.19.1

Table 120: Packages in Python 3.9.22 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-11-4	11.4.1-1
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4

Library	Version
executing	1.2.0
fonttools	4.43.0
gssapi	1.8.3
idna	3.7
importlib_metadata	7.1.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.8.1
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
libcudnn8	8.2.2.26-1+cuda11.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.26.4
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0

Library	Version
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.19.1

Table 121: Packages in Python 3.9.22 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
boto3	1.34.149
botocore	1.34.162

Library	Version
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.1.2
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.3.8
prometheus-client	0.13.1
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0

Library	Version
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.3.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.19.1

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2024.10.2.

Table 122: Packages in Python 3.8.19 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
backports.zoneinfo	0.2.1
bitarray	2.6.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
gssapi	1.8.3
idna	3.7
importlib_metadata	7.1.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.8.1
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4

Library	Version
packaging	23.2
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.19.1

Table 123: Packages in Python 3.8.19 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
backports.zoneinfo	0.2.1
bitarray	2.6.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-11-4	11.4.1-1
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
gssapi	1.8.3
idna	3.7
importlib_metadata	7.1.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.8.1
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
libcudnn8	8.2.2.26-1+cuda11.4
matplotlib	3.7.0

Library	Version
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.2
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18

Library	Version
wcwidth	0.2.5
zipp	3.19.1

Table 124: Packages in Python 3.8.19 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
backports.zoneinfo	0.2.1
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0

Library	Version
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.1.2
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0

Library	Version
pkgutil_resolve_name	1.3.10
platformdirs	4.3.6
prometheus-client	0.13.1
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316

Library	Version
typing_extensions	4.3.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.19.1

Table 125: Packages in Python 3.8.19 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
backports.zoneinfo	0.2.1
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.11.0
debugpy	1.5.1

Library	Version
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.1
Jinja2	3.1.5
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.1.2
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1
MarkupSafe	2.0.1
matplotlib	3.7.0

Library	Version
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
platformdirs	4.3.6
prometheus-client	0.13.1
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3

Library	Version
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.4.2
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.3.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.19.1

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2024.10.2.

Table 126: Packages in Python 3.7.17 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2024.7.4

Library	Version
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.7
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18

Library	Version
wcwidth	0.2.5
zipp	3.8.0

Table 127: Packages in Python 3.7.17 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2024.7.4
charset-normalizer	2.0.6
cuda-libraries-11-4	11.4.1-1
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.7
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
libcudnn8	8.2.2.26-1+cuda11.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2

Library	Version
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Table 128: Packages in Python 3.7.17 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.4.0

Library	Version
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.1.5
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter_core	4.12.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.1.2
jupyter-server	1.24.0
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Table 129: Packages in Python 3.7.17 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-2
cuda-libraries-dev-11-8	11.8.0-2
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.1.5
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter_core	4.12.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.1.2
jupyter-server	1.24.0
kerberos	1.3.1
kiwisolver	1.4.4
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3

Library	Version
numpy	1.21.6
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2024.10.2.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-reflect	2.11.12
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.12 Libraries for JupyterLab

This section lists the packages in Python 3.12 JupyterLab Runtimes that ship with ML Runtimes 2024.10.2.

Table 130: Packages in Python 3.12.10 JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7

Library	Version
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25

Library	Version
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	8.6.2
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.4
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2

Library	Version
nbformat	5.10.4
nest-asyncio	1.6.0
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3

Library	Version
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.20.0
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	78.1.1
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240821
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.8.0
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Table 131: Packages in Python 3.12.10 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7

Library	Version
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	8.6.2
jupyter_core	5.8.1
jupyter-events	0.10.0

Library	Version
jupyterlab	4.2.4
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook_shim	0.2.4
numpy	1.26.4

Library	Version
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure_eval	0.2.3
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.20.0

Library	Version
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	78.1.1
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240821
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.8.0
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.45.1
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2024.10.2.

Table 132: Packages in Python 3.11.12 JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cryptography	44.0.1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.0
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2

Library	Version
docstring-to-markdown	0.15
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	8.6.0
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3

Library	Version
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.5.8
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5

Library	Version
pillow	10.3.0
platformdirs	4.0.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.41
protobuf	4.25.3
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.17.2
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	25.1.1
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.20.0
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3

Library	Version
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.0
trino	0.330.0
types-python-dateutil	2.9.0.20240821
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.12
webcolors	24.8.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Table 133: Packages in Python 3.11.12 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0

Library	Version
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.0
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0

Library	Version
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	8.6.0
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.17

Library	Version
langchain-aws	0.1.17
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.4
langsmith	0.1.114
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.5.8
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.0.0
ply	3.11
prometheus_client	0.20.0

Library	Version
prompt-toolkit	3.0.41
protobuf	4.25.3
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.17.2
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	25.1.1
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.20.0
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0

Library	Version
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.5
traitlets	5.14.0
trino	0.330.0
types-python-dateutil	2.9.0.20240821
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.12
webcolors	24.8.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2024.10.2.

Table 134: Packages in Python 3.10.17 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0

Library	Version
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3

Library	Version
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.27.2
jupyter-lsp	2.2.2
jupyter_server	2.14.1
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2

Library	Version
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22

Library	Version
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.34.0
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0

Library	Version
typing_extensions	4.12.2
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.19.1

Table 135: Packages in Python 3.10.17 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162

Library	Version
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0

Library	Version
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.27.2
jupyter-lsp	2.2.2
jupyter_server	2.14.1
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1

Library	Version
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0

Library	Version
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.34.0
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.12.2

Library	Version
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.19.1

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2024.10.2.

Table 136: Packages in Python 3.9.22 JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argcomplete	2.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.1.0
boto3	1.34.149

Library	Version
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
importlib-resources	5.12.0

Library	Version
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.21.3

Library	Version
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.5.5
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9

Library	Version
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.11.0
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2

Library	Version
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.19.1

Table 137: Packages in Python 3.9.22 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argcomplete	2.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4

Library	Version
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
importlib-resources	5.12.0
impyla	0.18.0

Library	Version
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1
locket	1.0.0

Library	Version
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.5.5
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0

Library	Version
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tomli	2.0.1
toolz	0.12.1
tornado	6.5
traitlets	5.9.0
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.11.0

Library	Version
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.19.1

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2024.10.2.

Table 138: Packages in Python 3.8.19 JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argcomplete	2.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
backports.zoneinfo	0.2.1
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.1.0

Library	Version
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cycler	0.11.0
dask	2023.5.0
dataclasses-json	0.6.7
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2023.5.0
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0

Library	Version
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5

Library	Version
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.5.5
notebook_shim	0.2.4
numpy	1.24.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1

Library	Version
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2
traitlets	5.9.0
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.11.0
typing-inspect	0.9.0

Library	Version
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.19.1

Table 139: Packages in Python 3.8.19 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argcomplete	2.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
backports.zoneinfo	0.2.1
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.1.0
boto3	1.34.149

Library	Version
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	44.0.1
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
cycler	0.11.0
dask	2023.5.0
dataclasses-json	0.6.7
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2023.5.0
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.16.0
httpcore	1.0.9
httpx	0.27.0
idna	3.7

Library	Version
importlib_metadata	7.1.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.5
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter_client	7.4.4
jupyter_core	5.8.1
jupyter-events	0.10.0
jupyterlab	4.2.1
jupyterlab_git	0.51.1
jupyterlab-lsp	5.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
jupyter-lsp	2.2.5
jupyter_server	2.14.2
jupyter-server-mathjax	0.2.6
jupyter_server_terminals	0.5.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.17
langchain-aws	0.1.16
langchain-community	0.2.19
langchain-core	0.2.43
langchain-text-splitters	0.2.2
langsmith	0.1.147
libcudnn9	
libcudnn9-cuda-12	9.0.0.312-1

Library	Version
libcudnn9-dev	
libcudnn9-dev-cuda-12	9.0.0.312-1
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.5.5
notebook_shim	0.2.4
numpy	1.24.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2

Library	Version
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
requests-toolbelt	1.0.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tomli	2.0.1
toolz	0.12.1
tornado	6.4.2

Library	Version
traitlets	5.9.0
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.11.0
typing-inspect	0.9.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.19.1

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2024.10.2.

Table 140: Packages in Python 3.7.17 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4

Library	Version
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.41
idna	3.7
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.5
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter_core	4.12.0
jupyter-events	0.5.0
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter_server_fileid	0.9.0
jupyter-server-mathjax	0.2.6
jupyter_server_ydoc	0.6.1
jupyter-ydoc	0.2.4
kerberos	1.3.1

Library	Version
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0

Library	Version
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

Table 141: Packages in Python 3.7.17 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1

Library	Version
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.41
idna	3.7
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.5
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter_core	4.12.0
jupyter-events	0.5.0
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1

Library	Version
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter_server_fileid	0.9.0
jupyter-server-mathjax	0.2.6
jupyter_server_ydoc	0.6.1
jupyter-ydoc	0.2.4
kerberos	1.3.1
kiwisolver	1.4.4
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3

Library	Version
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

R 4.4 Libraries

This section lists the R 4.4 libraries that ship with ML Runtimes Runtimes 2024.10.2.

Table 142: R 4.4 Libraries for Workbench

Library	Version
askpass	1.2.0
base	4.4.0

Library	Version
bitops	1.0-7
boot	1.3-30
brew	1.0-10
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-22
cli	3.6.2
cluster	2.1.6
codetools	0.2-20
colorspace	2.1-0
compiler	4.4.0
curl	5.2.1
datasets	4.4.0
fansi	1.0.6
farver	2.1.1
foreign	0.8-86
ggplot2	3.5.1
glue	1.7.0
graphics	4.4.0
grDevices	4.4.0
grid	4.4.0
gtable	0.3.5
httr	1.4.7
isoband	0.2.7
jsonlite	1.8.8
KernSmooth	2.23-22
labeling	0.4.3
lattice	0.22-6
lifecycle	1.0.4
magrittr	2.0.3
MASS	7.3-60.2
Matrix	1.7-0
methods	4.4.0
mgcv	1.9-1
mime	0.12
munsell	0.5.1
nlme	3.1-164
nnet	7.3-19

Library	Version
openssl	2.1.2
parallel	4.4.0
pillar	1.9.0
pkgconfig	2.0.3
png	0.1-8
R6	2.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.9
rlang	1.1.3
Rook	1.2
rpart	4.1.23
Rserve	1.7-0
scales	1.3.0
spatial	7.3-17
splines	4.4.0
stats	4.4.0
stats4	4.4.0
survival	3.5-8
sys	3.4.2
tcltk	4.4.0
tibble	3.2.1
tools	4.4.0
utf8	1.2.4
utils	4.4.0
vctrs	0.6.5
viridisLite	0.4.2
withr	3.0.0

Table 143: Packages in Python 3.8.10 PBJ R 4.4 Libraries for Workbench

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.2
bleach	4.1.0

Library	Version
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fqdn	1.5.1
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.12.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.1
jinja2	3.1.5
jsonpointer	2.4
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-client	7.4.4
jupyter-core	5.8.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyterlab-pygments	0.1.2
jupyter-server	2.14.1
jupyter-server-terminals	0.5.3
MarkupSafe	2.0.1
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4

Library	Version
notebook-shim	0.2.3
overrides	7.7.0
packaging	23.2
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pkgutil-resolve-name	1.3.10
platformdirs	4.3.6
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pycparser	2.22
Pygments	2.15.1
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0.1
pyzmq	26.0.3
referencing	0.35.1
requests	2.32.3
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
tinycss2	1.2.1
tornado	6.4.2
traitlets	5.14.3
types-python-dateutil	2.9.0.20240316
typing-extensions	4.3.0
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	1.13

Library	Version
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.19.1

ML Runtimes 2024.10.1

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2024.10.1.

Note:

Nvidia GPU Editions with a Workbench Editor come with CUDA 11.4.1 and cuDNN 8.2 versions preinstalled.

Nvidia GPU Editions with JupyterLab and with Python 3.7 come with CUDA 11.8.0 and cuDNN 8.7 versions preinstalled.

All the other Nvidia GPU Edition Runtimes come with CUDA 12.3 and cuDNN 9.0 versions preinstalled.

Spark and Python Supportability

Specific Python versions are compatible with specific Spark versions. For detailed information about the compatibility levels for various Python versions across different Spark releases, see Spark Python Supportability Matrix.

Python 3.10 Libraries for Conda

This section lists the packages in Python 3.10 Conda Runtimes that ship with ML Runtimes 2024.10.1.

Table 144: Packages in Python 3.10.13 Conda Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2

Library	Version
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0

Library	Version
idna	3.7
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.13
langchain-aws	0.1.16
langchain-community	0.2.12
langchain-core	0.2.34
langchain-text-splitters	0.2.2
langsmith	0.1.103
locket	1.0.0
lsprotocol	2023.0.1

Library	Version
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1

Library	Version
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.34.0
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
typeguard	2.13.3
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3

Library	Version
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.12 Libraries for Workbench

This section lists the packages in Python 3.12 Workbench Runtimes that ship with ML Runtimes 2024.10.1.

Table 145: Packages in Python 3.12.4 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4

Library	Version
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4

Library	Version
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.0
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.5
stack-data	0.6.3

Library	Version
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.1
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.44.0

Table 146: Packages in Python 3.12.4 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.2

Library	Version
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
debugpy	1.8.2
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.29.5
ipython	8.26.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.4
jmespath	1.0.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab_pygments	0.3.0
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
MarkupSafe	2.1.5
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
nbclassic	1.1.0

Library	Version
nbclient	0.10.0
nbconvert	7.16.4
nbformat	5.10.4
nest-asyncio	1.6.0
notebook	6.5.7
notebook_shim	0.2.4
numpy	1.26.4
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
pexpect	4.9.0
pillow	10.4.0
platformdirs	4.2.2
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.0

Library	Version
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
sniffio	1.3.1
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tornado	6.4.1
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.44.0

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2024.10.1.

Table 147: Packages in Python 3.11.9 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
beautifulsoup4	4.12.2
bitarray	2.8.3

Library	Version
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.0
contourpy	1.2.0
cryptography	42.0.8
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.26.0
ipython	8.17.2
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.3
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.5.0
jupyter_server	2.14.1
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1

Library	Version
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.6
notebook_shim	0.2.3
numpy	1.26.4
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pillow	10.3.0
platformdirs	4.0.0
prometheus-client	0.18.0
prompt-toolkit	3.0.41
protobuf	4.25.3
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.16.1
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	24.0.1

Library	Version
raz_client	1.1.0
referencing	0.31.0
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.0
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.13.0
trino	0.330.0
types-python-dateutil	2.8.19.14
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.10
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Table 148: Packages in Python 3.11.9 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
anyio	4.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0

Library	Version
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.0
contourpy	1.2.0
cryptography	42.0.8
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.26.0
ipython	8.17.2
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.3
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9

Library	Version
jupyter_core	5.5.0
jupyter_server	2.14.1
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.6
notebook_shim	0.2.3
numpy	1.26.4
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pillow	10.3.0
platformdirs	4.0.0
prometheus-client	0.18.0
prompt-toolkit	3.0.41
protobuf	4.25.3
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.16.1
pyparsing	3.1.1
pyspnego	0.11.0

Library	Version
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	24.0.1
raz_client	1.1.0
referencing	0.31.0
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.0
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.13.0
trino	0.330.0
types-python-dateutil	2.8.19.14
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.10
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2024.10.1.

Table 149: Packages in Python 3.10.14 Workbench Runtimes - Standard

Library	Version
asttokens	2.2.1
backcall	0.2.0
bitarray	2.7.3
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.26.4
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0

Library	Version
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18
wcwidth	0.2.5

Table 150: Packages in Python 3.10.14 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3

Library	Version
asttokens	2.2.1
attrs	22.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.6.6
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
Jinja2	3.1.3
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.18.0
jsonschema-specifications	2023.12.1
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0

Library	Version
jupyter_server	2.14.1
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.2.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2

Library	Version
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.0.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Table 151: Packages in Python 3.10.14 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1

Library	Version
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	22.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.6.6
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
Jinja2	3.1.3
jmespath	1.0.1
jsonpointer	2.3
jsonschema	4.18.0
jsonschema-specifications	2023.12.1

Library	Version
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.2.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22

Library	Version
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.0.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2024.10.1.

Table 152: Packages in Python 3.9.19 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
gssapi	1.8.3
idna	3.7
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.26.4
packaging	23.2

Library	Version
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 153: Packages in Python 3.9.19 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
gssapi	1.8.3
idna	3.7
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.26.4

Library	Version
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 154: Packages in Python 3.9.19 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0

Library	Version
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.1
Jinja2	3.1.3
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	4.12.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.26.4
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
prometheus-client	0.13.1

Library	Version
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.3.0
tzdata	2023.3
tzlocal	5.2

Library	Version
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2024.10.1.

Table 155: Packages in Python 3.8.19 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
backports.zoneinfo	0.2.1
bitarray	2.6.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
gssapi	1.8.3
idna	3.7
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0

Library	Version
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.2
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2
six	1.16.0
stack-data	0.6.2

Library	Version
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 156: Packages in Python 3.8.19 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
backports.zoneinfo	0.2.1
bitarray	2.6.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.6.7
decorator	5.1.1
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
gssapi	1.8.3
idna	3.7
importlib-resources	5.12.0
importlib_metadata	7.1.0

Library	Version
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
jedi	0.19.1
jmespath	1.0.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.2
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
raz_client	1.1.0
requests	2.31.0
requests-kerberos	0.15.0
s3transfer	0.10.2

Library	Version
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 157: Packages in Python 3.8.19 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
backports.zoneinfo	0.2.1
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
boto3	1.34.149
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4

Library	Version
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.1
Jinja2	3.1.3
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	4.12.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4

Library	Version
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.13.1
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0

Library	Version
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.3.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

Table 158: Packages in Python 3.8.19 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
backports.zoneinfo	0.2.1
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
boto3	1.34.149

Library	Version
botocore	1.34.162
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.43.0
fqdn	1.5.1
gssapi	1.8.3
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.1
Jinja2	3.1.3
jmespath	1.0.1
jsonpointer	2.4
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.4
jupyter_core	4.12.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab-pygments	0.1.2
kerberos	1.3.1

Library	Version
kiwisolver	1.4.4
krb5	0.5.1
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.13.1
prompt-toolkit	3.0.38
protobuf	4.25.3
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	26.0.3

Library	Version
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
s3transfer	0.10.2
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing_extensions	4.3.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2024.10.1.

Table 159: Packages in Python 3.7.17 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0

Library	Version
backcall	0.2.0
bitarray	2.6.0
certifi	2024.7.4
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.7
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1

Library	Version
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Table 160: Packages in Python 3.7.17 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2024.7.4
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.7
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Table 161: Packages in Python 3.7.17 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.7
importlib-metadata	4.11.0

Library	Version
importlib-resources	5.4.0
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.1.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21

Library	Version
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Table 162: Packages in Python 3.7.17 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0

Library	Version
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.1.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	21.3
pandocfilters	1.5.0

Library	Version
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2024.10.1.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12

Library	Version
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-reflect	2.11.12
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.12 Libraries for JupyterLab

This section lists the packages in Python 3.12 JupyterLab Runtimes that ship with ML Runtimes 2024.10.1.

Table 163: Packages in Python 3.12.4 JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6

Library	Version
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1

Library	Version
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	8.6.2
jupyter_core	5.7.2
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.16
langchain-aws	0.1.16
langchain-community	0.2.16
langchain-core	0.2.38
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0

Library	Version
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4

Library	Version
rfc3986-validator	0.1.1
rpds-py	0.20.0
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.1
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240821
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.8.0
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.44.0
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Table 164: Packages in Python 3.12.4 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.9.2
bleach	6.1.0
boto3	1.34.146
botocore	1.34.146
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.2
contourpy	1.2.1
cryptography	43.0.0
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.2
decorator	5.1.1

Library	Version
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.53.1
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	8.6.2
jupyter_core	5.7.2

Library	Version
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.4
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.6.0
langchain	0.2.16
langchain-aws	0.1.16
langchain-community	0.2.16
langchain-core	0.2.38
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.9.1
matplotlib-inline	0.1.7
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.6.0
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	24.1
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.4

Library	Version
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.4.0
platformdirs	4.2.2
ply	3.11
prometheus_client	0.20.0
prompt_toolkit	3.0.47
protobuf	4.25.3
psutil	6.0.0
ptyprocess	0.7.0
pure-sasl	0.6.2
pure_eval	0.2.3
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.18.0
pyparsing	3.1.2
pyspnego	0.11.0
python-dateutil	2.9.0.post0
python-json-logger	2.0.7
pytz	2024.1
PyYAML	6.0.2
pyzmq	26.0.3
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.20.0
s3transfer	0.10.2
Send2Trash	1.8.3
setuptools	71.1.0
six	1.16.0
smmap	5.0.1
sniffio	1.3.1

Library	Version
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.4.1
traitlets	5.14.3
trino	0.330.0
types-python-dateutil	2.9.0.20240821
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2024.1
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.13
webcolors	24.8.0
webencodings	0.5.1
websocket-client	1.8.0
wheel	0.44.0
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2024.10.1.

Table 165: Packages in Python 3.11.9 JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1

Library	Version
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cryptography	42.0.8
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.0
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.44.3

Library	Version
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	8.6.0
jupyter_core	5.5.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1

Library	Version
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.16
langchain-aws	0.1.17
langchain-community	0.2.16
langchain-core	0.2.38
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.5.8
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.0.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.41

Library	Version
protobuf	4.25.3
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1
Pygments	2.17.2
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	25.1.1
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.20.0
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3

Library	Version
tinycss2	1.3.0
toolz	0.12.1
tornado	6.3.3
traitlets	5.14.0
trino	0.330.0
types-python-dateutil	2.9.0.20240821
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.12
webcolors	24.8.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Table 166: Packages in Python 3.11.9 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohappyeyeballs	2.4.0
aiohttp	3.10.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	24.2.0
babel	2.16.0

Library	Version
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
cattrs	24.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cryptography	42.0.8
cycler	0.12.1
dask	2024.8.2
dataclasses-json	0.6.7
debugpy	1.8.0
decorator	5.1.1
deepmerge	2.0
defusedxml	0.7.1
distributed	2024.8.2
docstring-to-markdown	0.15
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.9.0
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.2

Library	Version
idna	3.7
importlib_metadata	8.4.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	8.6.0
jupyter_core	5.5.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.5
krb5	0.5.1
langchain	0.2.16
langchain-aws	0.1.17
langchain-community	0.2.16
langchain-core	0.2.38
langchain-text-splitters	0.2.4
langsmith	0.1.114
locket	1.0.0
lsprotocol	2023.0.1

Library	Version
MarkupSafe	2.1.5
marshmallow	3.22.0
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.2
nbformat	5.10.4
nest-asyncio	1.5.8
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.7
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.0.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.41
protobuf	4.25.3
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.9.0
pydantic_core	2.23.2
pygls	1.3.1

Library	Version
Pygments	2.17.2
pyparsing	3.1.1
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.2
pyzmq	25.1.1
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.20.0
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.6
SQLAlchemy	2.0.34
stack-data	0.6.3
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
toolz	0.12.1
tornado	6.3.3
traitlets	5.14.0
trino	0.330.0
types-python-dateutil	2.9.0.20240821
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2

Library	Version
uri-template	1.3.0
urllib3	2.2.2
wcwidth	0.2.12
webcolors	24.8.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.11
zict	3.0.0
zipp	3.20.1

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2024.10.1.

Table 167: Packages in Python 3.10.14 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2

Library	Version
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4

Library	Version
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.13
langchain-aws	0.1.16
langchain-community	0.2.12
langchain-core	0.2.34
langchain-text-splitters	0.2.2
langsmith	0.1.103
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0

Library	Version
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2

Library	Version
raz_client	1.1.0
referencing	0.34.0
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
typeguard	2.13.3
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4

Library	Version
zict	3.0.0
zipp	3.18.1

Table 168: Packages in Python 3.10.14 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.7.0
anyio	4.4.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0

Library	Version
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.7
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1

Library	Version
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.14.1
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.27.2
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.13
langchain-aws	0.1.16
langchain-community	0.2.12
langchain-core	0.2.34
langchain-text-splitters	0.2.2
langsmith	0.1.103
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4

Library	Version
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.34.0
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0

Library	Version
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
typeguard	2.13.3
typing-inspect	0.9.0
typing_extensions	4.12.2
tzdata	2023.3
tzlocal	5.2
uri-template	1.2.0
urllib3	2.2.2
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2024.10.1.

Table 169: Packages in Python 3.9.19 JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argcomplete	2.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1

Library	Version
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6

Library	Version
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.13
langchain-aws	0.1.16
langchain-community	0.2.12
langchain-core	0.2.34
langchain-text-splitters	0.2.2
langsmith	0.1.95
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.5.5
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4

Library	Version
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1

Library	Version
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Table 170: Packages in Python 3.9.19 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohappyeyeballs	2.3.4
aiohttp	3.10.0

Library	Version
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argcomplete	2.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2024.7.1
dataclasses-json	0.6.7
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.7.1
docstring-to-markdown	0.15
entrypoints	0.4

Library	Version
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3

Library	Version
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.13
langchain-aws	0.1.16
langchain-community	0.2.12
langchain-core	0.2.34
langchain-text-splitters	0.2.2
langsmith	0.1.95
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.5.5
notebook_shim	0.2.4
numpy	1.26.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.2
pexpect	4.8.0

Library	Version
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.31

Library	Version
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2024.10.1.

Table 171: Packages in Python 3.8.19 JupyterLab Runtimes - Standard

Library	Version
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0

Library	Version
argcomplete	2.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
backports.zoneinfo	0.2.1
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2023.5.0
dataclasses-json	0.6.7
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2023.5.0
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0

Library	Version
fastjsonschema	2.20.0
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0

Library	Version
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.13
langchain-aws	0.1.16
langchain-community	0.2.12
langchain-core	0.2.34
langchain-text-splitters	0.2.2
langsmith	0.1.95
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.5.5
notebook_shim	0.2.4
numpy	1.24.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10

Library	Version
platformdirs	3.5.0
ply	3.11
prometheus_client	0.20.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0

Library	Version
tenacity	8.5.0
terminado	0.18.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Table 172: Packages in Python 3.8.19 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohappyeyeballs	2.3.4
aiohttp	3.10.0
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.7.0
anyio	4.4.0
argcomplete	2.0.0
argon2-cffi	23.1.0

Library	Version
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.2.0
Babel	2.15.0
backcall	0.2.0
backports.zoneinfo	0.2.1
beautifulsoup4	4.12.3
bitarray	2.6.0
bleach	6.1.0
boto3	1.34.149
botocore	1.34.162
cattrs	23.2.3
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cryptography	42.0.8
cycler	0.11.0
dask	2023.5.0
dataclasses-json	0.6.7
debugpy	1.6.7
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2023.5.0
docstring-to-markdown	0.15
entrypoints	0.4
exceptiongroup	1.2.2
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.20.0
fonttools	4.43.0

Library	Version
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.6.1
gitdb	4.0.11
GitPython	3.1.43
greenlet	3.0.3
gssapi	1.8.3
h11	0.14.0
httpcore	1.0.5
httpx	0.27.0
idna	3.7
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.4
jmespath	1.0.1
json5	0.9.25
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	3.0.0
jsonschema	4.23.0
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.5
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.14.2
jupyter_server_terminals	0.5.3
jupyterlab	4.2.1
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.27.3

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
krb5	0.5.1
langchain	0.2.13
langchain-aws	0.1.16
langchain-community	0.2.12
langchain-core	0.2.34
langchain-text-splitters	0.2.2
langsmith	0.1.95
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.5
marshmallow	3.21.3
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.10.0
nbconvert	7.16.4
nbdime	4.0.1
nbformat	5.10.4
nest-asyncio	1.5.5
notebook_shim	0.2.4
numpy	1.24.4
orjson	3.10.6
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.5.1
parso	0.8.3
partd	1.4.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
ply	3.11

Library	Version
prometheus_client	0.20.0
prompt-toolkit	3.0.38
protobuf	4.25.3
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.22
pydantic	2.4.0
pydantic_core	2.10.0
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
pyspnego	0.11.0
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.2
raz_client	1.1.0
referencing	0.35.1
requests	2.32.3
requests-kerberos	0.15.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.19.1
s3transfer	0.10.2
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.1
sniffio	1.3.1
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.31
stack-data	0.6.2
tblib	3.0.0
tenacity	8.5.0
terminado	0.18.1

Library	Version
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.3.0
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
trino	0.330.0
types-python-dateutil	2.9.0.20240316
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
tzlocal	5.2
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.8.0
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2024.10.1.

Table 173: Packages in Python 3.7.17 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0

Library	Version
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.41
idna	3.7
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.3
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1

Library	Version
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1

Library	Version
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

Table 174: Packages in Python 3.7.17 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0

Library	Version
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.41
idna	3.7
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.3
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1
jupyter-server	1.21.0

Library	Version
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

R 4.4 Libraries

This section lists the R 4.4 libraries that ship with ML Runtimes Runtimes 2024.10.1.

Table 175: R 4.4 Libraries for Workbench

Library	Version
askpass	1.2.0
bases	4.4.0
bitopss	1.0-7
boots	1.3-30
brews	1.0-10
Cairos	1.2-0
caToolss	1.18.2
cdsw	2.1
class	7.3-22
cli	3.6.2
cluster	2.1.6
codetools	0.2-20
colorspace	2.1-0
compiler	4.4.0
curl	5.2.1
datasets	4.4.0
fansi	1.0.6
farver	2.1.1
foreign	0.8-86
ggplot	23.5.1
glue	1.7.0
graphics	4.4.0
grDevices	4.4.0
grid	4.4.0
gtable	0.3.5
httr	1.4.7
isoband	0.2.7
jsonlite	1.8.8
KernSmooth	2.23-22
labeling	0.4.3
lattice	0.22-6
lifecycle	1.0.4
magrittr	2.0.3
MASS	7.3-60.2
Matrix	1.7-0
methods	4.4.0
mgcv	1.9-1

Library	Version
mime	0.12
munsel	l0.5.1
nlme	3.1-164
nnet	7.3-19
openssl	2.1.2
parallel	4.4.0
pillar	1.9.0
pkgconfig	2.0.3
png	0.1-8
R	62.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.9
rlang	1.1.3
Rook	1.2
rpart	4.1.23
Rserve	1.7-0
scales	1.3.0
spatial	7.3-17
splines	4.4.0
stats	4.4.0

Table 176: Packages in Python 3.8.10 PBJ R 4.4 Libraries for Workbench

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.2
bleach	4.1.0
certifi	2024.7.4
cffi	1.16.0
charset-normalizer	3.3.2
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4

Library	Version
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fqdn	1.5.1
idna	3.7
importlib-metadata	4.11.0
importlib-resources	5.12.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.1
Jinja2	3.1.3
jsonpointer	2.4
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-client	7.4.4
jupyter-core	4.12.0
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-server	2.14.1
jupyter-server-terminals	0.5.3
jupyterlab-pygments	0.1.2
MarkupSafe	2.0.1
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook-shim	0.2.3
overrides	7.7.0
packaging	23.2
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5

Library	Version
pkgutil-resolve-name	1.3.10
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pycparser	2.22
Pygments	2.15.1
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0.1
pyzmq	26.0.3
referencing	0.35.1
requests	2.32.3
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.14.3
types-python-dateutil	2.9.0.20240316
typing-extensions	4.3.0
uri-template	1.3.0
urllib3	1.26.19
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.8.0
zipp	3.15.0

ML Runtimes 2024.05.2

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2024.05.2

Note:

Nvidia GPU Editions with a Workbench Editor come with CUDA 11.4.1 and cuDNN 8.2 versions preinstalled.

Nvidia GPU Editions with JupyterLab and with Python 3.7 come with CUDA 11.8.0 and cuDNN 8.7 versions preinstalled.

All the other Nvidia GPU Edition Runtimes come with CUDA 12.3 and cuDNN 9.0 versions preinstalled.

Spark and Python Supportability

Specific Python versions are compatible with specific Spark versions. For detailed information about the compatibility levels for various Python versions across different Spark releases, see Spark Python Supportability Matrix.

Python 3.10 Libraries for Conda

This section lists the packages in Python 3.10 Conda Runtimes that ship with ML Runtimes 2024.05.2.

Table 177: Packages in Python 3.10.13 Conda Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.94
botocore	1.34.94
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
click	8.1.7

Library	Version
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.4
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11

Library	Version
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.11.2
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5

Library	Version
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.3

Library	Version
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typeguard	2.13.3
typing-inspect	0.9.0
typing_extensions	4.5.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2024.05.2.

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2024.05.2.

Table 178: Packages in Python 3.10.13 Workbench Runtimes - Standard

Library	Version
asttokens	2.2.1
backcall	0.2.0
bitarray	2.7.3
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
idna	3.2
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2024.05.2.

Table 179: Packages in Python 3.9.18 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
idna	3.2

Library	Version
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0

Library	Version
typing_extensions	4.11.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 180: Packages in Python 3.9.18 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
idna	3.2
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2

Library	Version
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
typing_extensions	4.11.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2024.05.2.

Table 181: Packages in Python 3.8.18 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1

Library	Version
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
idna	3.2
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
jedi	0.19.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.2
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2

Library	Version
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
typing_extensions	4.11.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 182: Packages in Python 3.8.18 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
idna	3.2
importlib-resources	5.12.0

Library	Version
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
jedi	0.19.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.2
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
typing_extensions	4.11.0

Library	Version
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2024.05.2.

Table 183: Packages in Python 3.7.16 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8

Library	Version
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Table 184: Packages in Python 3.7.16 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2024.05.2.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-reflect	2.11.12
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2

Library	Version
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2024.05.2.

Table 185: Packages in Python 3.11.6 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.6.0
anyio	4.1.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	23.1.0
Babel	2.13.1
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.2
certifi	2023.11.17
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
dask	2024.5.0
dataclasses-json	0.6.6

Library	Version
debugpy	1.8.0
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.13
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.11
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.6
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.14
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	8.6.0

Library	Version
jupyter_core	5.5.0
jupyter_server	2.11.2
jupyter_server_terminals	0.4.4
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.25.2
kerberos	1.3.1
kiwisolver	1.4.5
langchain	0.1.19
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0
MarkupSafe	2.1.3
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbdime	4.0.1
nbformat	5.9.2
nest-asyncio	1.5.8
notebook_shim	0.2.3
numpy	1.26.4
orjson	3.10.3
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2

Library	Version
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.0.0
ply	3.11
prometheus-client	0.19.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pydantic	2.7.1
pydantic_core	2.18.2
pygls	1.2.1
Pygments	2.17.2
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.1
referencing	0.31.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.1
s3transfer	0.10.1
Send2Trash	1.8.2
six	1.16.0
smmap	5.0.1
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.30
stack-data	0.6.3
tblib	3.0.0

Library	Version
tenacity	8.3.0
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.2.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.14.0
types-python-dateutil	2.8.19.14
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.12
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Table 186: Packages in Python 3.11.6 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.6.0
anyio	4.1.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4

Library	Version
attrs	23.1.0
Babel	2.13.1
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.2
certifi	2023.11.17
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.0
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.13
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.11
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0

Library	Version
idna	3.6
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.14
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	8.6.0
jupyter_core	5.5.0
jupyter_server	2.11.2
jupyter_server_terminals	0.4.4
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.25.2
kerberos	1.3.1
kiwisolver	1.4.5
langchain	0.1.19
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0
MarkupSafe	2.1.3
marshmallow	3.21.2

Library	Version
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbdime	4.0.1
nbformat	5.9.2
nest-asyncio	1.5.8
notebook_shim	0.2.3
numpy	1.26.4
orjson	3.10.3
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.0.0
ply	3.11
prometheus-client	0.19.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pydantic	2.7.1
pydantic_core	2.18.2
pygls	1.2.1
Pygments	2.17.2
pyparsing	3.1.1
python-dateutil	2.8.2

Library	Version
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.1
referencing	0.31.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.1
s3transfer	0.10.1
Send2Trash	1.8.2
six	1.16.0
smmap	5.0.1
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.30
stack-data	0.6.3
tblib	3.0.0
tenacity	8.3.0
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.2.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.14.0
types-python-dateutil	2.8.19.14
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.12
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4

Library	Version
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2024.05.2.

Table 187: Packages in Python 3.10.13 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.94
botocore	1.34.94
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0

Library	Version
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.4
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0

Library	Version
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.11.2
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4

Library	Version
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24

Library	Version
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typeguard	2.13.3
typing-inspect	0.9.0
typing_extensions	4.5.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Table 188: Packages in Python 3.10.13 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3

Library	Version
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.94
botocore	1.34.94
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10

Library	Version
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.4
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.11.2
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1

Library	Version
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pydantic	1.10.7

Library	Version
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typeguard	2.13.3
typing-inspect	0.9.0
typing_extensions	4.5.0
tzdata	2023.3
uri-template	1.2.0

Library	Version
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2024.05.2.

Table 189: Packages in Python 3.9.18 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.6.0
anyio	4.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.3
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0

Library	Version
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.6.0
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.15.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	2.10
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3

Library	Version
jmespath	1.0.1
json5	0.9.5
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.11.2
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.1.2
jupyterlab_git	0.50.0
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.1
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	4.0.1

Library	Version
nbformat	5.3.0
nest-asyncio	1.5.5
notebook_shim	0.2.3
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.4.3
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.20
pydantic	2.0
pydantic_core	2.0.1
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1

Library	Version
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
sortedcontainers	2.4.0
soupsieve	2.3.2
SQLAlchemy	2.0.30
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.1.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Table 190: Packages in Python 3.9.18 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1

Library	Version
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.6.0
anyio	4.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.3
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.6.0
distributed	2024.5.0
docstring-to-markdown	0.12

Library	Version
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.15.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	2.10
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.5
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.11.2
jupyter_server_terminals	0.5.3

Library	Version
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.1.2
jupyterlab_git	0.50.0
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.1
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	4.0.1
nbformat	5.3.0
nest-asyncio	1.5.5
notebook_shim	0.2.3
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.4.3
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0

Library	Version
platformdirs	3.5.0
ply	3.11
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.20
pydantic	2.0
pydantic_core	2.0.1
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
sortedcontainers	2.4.0
soupsieve	2.3.2
SQLAlchemy	2.0.30
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.9.2
thrift	0.16.0

Library	Version
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.1.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2024.05.2.

Table 191: Packages in Python 3.8.18 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.6.0
anyio	4.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0

Library	Version
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.3
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2023.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.6.0
distributed	2023.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.15.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4

Library	Version
httpx	0.27.0
idna	2.10
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.5
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.11.2
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.1.2
jupyterlab_git	0.50.0
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.1

Library	Version
MarkupSafe	2.1.1
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	4.0.1
nbformat	5.3.0
nest-asyncio	1.5.5
notebook_shim	0.2.3
numpy	1.24.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.4.3
parso	0.8.3
partd	1.4.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
ply	3.11
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.20
pydantic	2.0
pydantic_core	2.0.1
pygls	1.3.1

Library	Version
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
sortedcontainers	2.4.0
soupsieve	2.3.2
SQLAlchemy	2.0.30
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.1.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5

Library	Version
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Table 192: Packages in Python 3.8.18 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.6.0
anyio	4.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.3
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0

Library	Version
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2023.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.6.0
distributed	2023.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.15.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	2.10
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.5

Library	Version
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter_client	7.4.4
jupyter_core	5.3.0
jupyter_server	2.11.2
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.1.2
jupyterlab_git	0.50.0
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.1
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	4.0.1
nbformat	5.3.0
nest-asyncio	1.5.5

Library	Version
notebook_shim	0.2.3
numpy	1.24.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.4.3
parso	0.8.3
partd	1.4.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
ply	3.11
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.20
pydantic	2.0
pydantic_core	2.0.1
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0

Library	Version
s3transfer	0.10.1
Send2Trash	1.8.3
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
sortedcontainers	2.4.0
soupsieve	2.3.2
SQLAlchemy	2.0.30
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.1.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2024.05.2.

Table 193: Packages in Python 3.7.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.41
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.3

Library	Version
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10

Library	Version
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

Table 194: Packages in Python 3.7.16 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1 + cuda11.8
libcudnn8-dev	8.7.0.84-1 + cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.41
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0

Library	Version
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.3
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0

Library	Version
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1

Library	Version
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

R 4.4 Libraries

This section lists the R 4.4 libraries that ship with ML Runtimes 2024.05.2.

Table 195: R 4.4 Libraries for Workbench

Library	Version
askpass	1.2.0
base	4.4.0
bitops	1.0-7
boot	1.3-30
brew	1.0-10
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-22
cli	3.6.2
cluster	2.1.6
codetools	0.2-20
colorspace	2.1-0
compiler	4.4.0
curl	5.2.1
datasets	4.4.0
fansi	1.0.6
farver	2.1.1
foreign	0.8-86
ggplot2	3.5.1
glue	1.7.0
graphics	4.4.0
grDevices	4.4.0
grid	4.4.0
gtable	0.3.5
httr	1.4.7
isoband	0.2.7
jsonlite	1.8.8
KernSmooth	2.23-22

Library	Version
labeling	0.4.3
lattice	0.22-6
lifecycle	1.0.4
magrittr	2.0.3
MASS	7.3-60.2
Matrix	1.7-0
methods	4.4.0
mgcv	1.9-1
mime	0.12
munsell	0.5.1
nlme	3.1-164
nnet	7.3-19
openssl	2.1.2
parallel	4.4.0
pillar	1.9.0
pkgconfig	2.0.30
png	0.1-8
R6	2.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.9
rlang	1.1.3
Rook	1.2
rpart	4.1.23
Rserve	1.7-0
scales	1.3.0
spatial	7.3-17
splines	4.4.0
stats	4.4.0
stats4	4.4.0
survival	3.5-8
sys	3.4.2
tcltk	4.4.0
tibble	3.2.1
tools	4.4.0
utf8	1.2.4
utils	4.4.0
vctrs	0.6.5
viridisLite	0.4.2
withr	3.0.0

Table 196: Packages in Python 3.8.10 PBJ R 4.4 Libraries for Workbench

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.2.1
attrs	23.2.0
backcall	0.2.0
beautifulsoup4	4.12.2
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fqdn	1.5.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.1
Jinja2	3.1.3
jsonpointer	2.4
jsonschema	4.22.0
jsonschema-specifications	2023.12.1
jupyter-client	7.4.4
jupyter-core	4.12.0
jupyter-events	0.10.0
jupyter-kernel-gateway	2.5.2
jupyter-server	2.11.2
jupyter-server-terminals	0.5.3

Library	Version
jupyterlab-pygments	0.1.2
MarkupSafe	2.0.1
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook-shim	0.2.3
overrides	7.7.0
packaging	23.2
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pkgutil-resolve-name	1.3.10
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pycparser	2.21
Pygments	2.15.1
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0.1
pyzmq	26.0.3
referencing	0.35.1
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.1
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1

Library	Version
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.14.3
types-python-dateutil	2.9.0.20240316
typing-extensions	4.3.0
uri-template	1.3.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	24.6.0
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

ML Runtimes 2024.05.1

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2024.05.1

Note:

Nvidia GPU Editions with a Workbench Editor come with CUDA 11.4.1 and cuDNN 8.2 versions preinstalled.

Nvidia GPU Editions with JupyterLab and with Python 3.7 come with CUDA 11.8.0 and cuDNN 8.7 versions preinstalled.

All the other Nvidia GPU Edition Runtimes come with CUDA 12.3 and cuDNN 9.0 versions preinstalled.

Spark and Python Supportability

Specific Python versions are compatible with specific Spark versions. For detailed information about the compatibility levels for various Python versions across different Spark releases, see Spark Python Supportability Matrix.

Python 3.10 Libraries for Conda

This section lists the packages in Python 3.10 Conda Runtimes that ship with ML Runtimes 2024.05.1.

Table 197: Packages in Python 3.10.13 Conda Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0

Library	Version
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.94
botocore	1.34.94
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1

Library	Version
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.4
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter-ydoc	2.0.1
jupyter_client	7.4.4
jupyter_collaboration	2.0.5
jupyter_core	5.3.0
jupyter_server	2.7.0
jupyter_server_fileid	0.9.0
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4

Library	Version
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pycrdt	0.8.16
pycrdt-websocket	0.12.7
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3

Library	Version
traitlets	5.9.0
typeguard	2.13.3
typing-inspect	0.9.0
typing_extensions	4.5.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2024.05.1.

Table 198: Packages in Python 3.10.13 Workbench Runtimes - Standard

Library	Version
asttokens	2.2.1
backcall	0.2.0
bitarray	2.7.3
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
idna	3.2
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2

Library	Version
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2024.05.1.

Table 199: Packages in Python 3.9.18 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
idna	3.2
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38

Library	Version
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
typing_extensions	4.11.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 200: Packages in Python 3.9.18 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1 + cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4

Library	Version
executing	1.2.0
fonttools	4.43.0
idna	3.2
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.19.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.2
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0

Library	Version
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
typing_extensions	4.11.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2024.05.1.

Table 201: Packages in Python 3.8.18 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
idna	3.2
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
jedi	0.19.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1

Library	Version
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.2
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
typing_extensions	4.11.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 202: Packages in Python 3.8.18 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1

Library	Version
libcudnn	8 8.2.2.26-1 + cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.43.0
idna	3.2
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
jedi	0.19.1
jupyter_client	7.4.4
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.2
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5

Library	Version
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	25.1.2
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.3
traitlets	5.9.0
typing_extensions	4.11.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2024.05.1.

Table 203: Packages in Python 3.7.16 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3

Library	Version
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Table 204: Packages in Python 3.7.16 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1 + cuda11.4

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3

Library	Version
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2024.05.1.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-reflect	2.11.12
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2024.05.1.

Table 205: Packages in Python 3.11.6 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.6.0
anyio	4.1.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	23.1.0
Babel	2.13.1
backcall	0.2.0

Library	Version
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.2
certifi	2023.11.17
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.0
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.13
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.11
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.6
importlib_metadata	7.1.0
impyla	0.18.0

Library	Version
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.14
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter-ydoc	2.0.1
jupyter_client	8.6.0
jupyter_collaboration	2.0.5
jupyter_core	5.5.0
jupyter_server	2.11.1
jupyter_server_fileid	0.9.0
jupyter_server_terminals	0.4.4
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.25.2
kerberos	1.3.1
kiwisolver	1.4.5
langchain	0.1.19
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0
MarkupSafe	2.1.3
marshmallow	3.21.2

Library	Version
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbdime	4.0.1
nbformat	5.9.2
nest-asyncio	1.5.8
notebook_shim	0.2.3
numpy	1.26.4
orjson	3.10.3
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.0.0
ply	3.11
prometheus-client	0.19.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pycrdt	0.8.16
pycrdt-websocket	0.12.7
pydantic	2.7.1
pydantic_core	2.18.2
pygls	1.2.1
Pygments	2.17.2

Library	Version
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.1
referencing	0.31.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.1
s3transfer	0.10.1
Send2Trash	1.8.2
six	1.16.0
smmap	5.0.1
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.30
stack-data	0.6.3
tblib	3.0.0
tenacity	8.3.0
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.2.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.14.0
types-python-dateutil	2.8.19.14
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.12
webcolors	1.13

Library	Version
webencodings	0.5.1
websocket-client	1.6.4
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Table 206: Packages in Python 3.11.6 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
annotated-types	0.6.0
anyio	4.1.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
async-lru	2.0.4
attrs	23.1.0
Babel	2.13.1
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.2
certifi	2023.11.17
cffi	1.16.0
charset-normalizer	3.3.2
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0

Library	Version
cycler	0.12.1
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.8.0
decorator	5.1.1
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.13
executing	2.0.1
faiss-cpu	1.8.0
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.11
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.6
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.3
jmespath,	1.0.1
json5	0.9.14
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.10.0

Library	Version
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter-ydoc	2.0.1
jupyter_client	8.6.0
jupyter_collaboration	2.0.5
jupyter_core	5.5.0
jupyter_server	2.11.1
jupyter_server_fileid	0.9.0
jupyter_server_terminals	0.4.4
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab_git	0.50.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.25.2
kerberos	1.3.1
kiwisolver	1.4.5
langchain	0.1.19
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0
MarkupSafe	2.1.3
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbdime	4.0.1
nbformat	5.9.2
nest-asyncio	1.5.8
notebook_shim	0.2.3
numpy	1.26.4
orjson	3.10.3

Library	Version
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.9.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	4.0.0
ply	3.11
prometheus-client	0.19.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pycrdt	0.8.16
pycrdt-websocket	0.12.7
pydantic	2.7.1
pydantic_core	2.18.2
pygls	1.2.1
Pygments	2.17.2
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.1
referencing	0.31.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.1
s3transfer	0.10.1
Send2Trash	1.8.2

Library	Version
six	1.16.0
smmap	5.0.1
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.5
SQLAlchemy	2.0.30
stack-data	0.6.3
tblib	3.0.0
tenacity	8.3.0
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.2.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.14.0
types-python-dateutil	2.8.19.14
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.12
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2024.05.1.

Table 207: Packages in Python 3.10.13 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1

Library	Version
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.94
botocore	1.34.94
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3

Library	Version
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.4
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter-ydoc	2.0.1
jupyter_client	7.4.4
jupyter_collaboration	2.0.5
jupyter_core	5.3.0
jupyter_server	2.7.0
jupyter_server_fileid	0.9.0
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2

Library	Version
jupyterlab_git	0.50.0
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0

Library	Version
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pycrdt	0.8.16
pycrdt-websocket	0.12.7
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0

Library	Version
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typeguard	2.13.3
typing-inspect	0.9.0
typing_extensions	4.5.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Table 208: Packages in Python 3.10.13 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2

Library	Version
bitarray	2.7.3
bleach	6.0.0
boto3	1.34.94
botocore	1.34.94
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.7.1
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.16.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	3.4
importlib_metadata	7.1.0

Library	Version
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.11
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter-ydoc	2.0.1
jupyter_client	7.4.4
jupyter_collaboration	2.0.5
jupyter_core	5.3.0
jupyter_server	2.7.0
jupyter_server_field	0.9.0
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.2.2
jupyterlab_git	0.50.0
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2

Library	Version
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.6.3
nbconvert	7.2.9
nbdime	4.0.1
nbformat	5.7.3
nest-asyncio	1.5.5
notebook_shim	0.2.2
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.21
pycrdt	0.8.16
pycrdt-websocket	0.12.7
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
sortedcontainers	2.4.0
soupsieve	2.4
SQLAlchemy	2.0.24
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.2.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typeguard	2.13.3
typing-inspect	0.9.0
typing_extensions	4.5.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5

Library	Version
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
yarl	1.9.4
zict	3.0.0
zipp	3.18.1

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2024.05.1.

Table 209: Packages in Python 3.9.18 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.6.0
anyio	4.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.3
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0

Library	Version
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.6.0
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.15.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	2.1
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.5

Library	Version
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter-ydoc	2.0.1
jupyter_client	7.4.4
jupyter_collaboration	2.0.5
jupyter_core	5.3.0
jupyter_server	2.7.0
jupyter_server_fileid	0.9.1
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.1.2
jupyterlab_git	0.50.0
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.1
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.5.1
nbconvert	7.4.0

Library	Version
nbdime	4.0.1
nbformat	5.3.0
nest-asyncio	1.5.5
notebook_shim	0.2.3
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.4.3
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.2
pycrdt	0.8.16
pycrdt-websocket	0.12.7
pydantic	2
pydantic_core	2.0.1
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10

Library	Version
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
sortedcontainers	2.4.0
soupsieve	2.3.2
SQLAlchemy	2.0.30
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.1.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Table 210: Packages in Python 3.9.18 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.6.0
anyio	4.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.3
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2024.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2

Library	Version
deepmerge	1.1.1
defusedxml	0.6.0
distributed	2024.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.15.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	2.10
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.5
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6

Library	Version
jupyter-ydoc	2.0.1
jupyter_client	7.4.4
jupyter_collaboration	2.0.5
jupyter_core	5.3.0
jupyter_server	2.7.0
jupyter_server_field	0.9.1
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.1.2
jupyterlab_git	0.50.0
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.1
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	4.0.1
nbformat	5.3.0
nest-asyncio	1.5.5
notebook_shim	0.2.3
numpy	1.26.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2

Library	Version
pandas	2.1.4
pandocfilters	1.4.3
parso	0.8.3
partd	1.4.2
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
platformdirs	3.5.0
ply	3.11
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.20
pycrdt	0.8.16
pycrdt-websocket	0.12.7
pydantic	2.0
pydantic_core	2.0.1
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0

Library	Version
sniffio	1.2.0
sortedcontainers	2.4.0
soupsieve	2.3.2
SQLAlchemy	2.0.30
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.1.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2024.05.1.

Table 211: Packages in Python 3.8.18 JupyterLab Runtimes - Standard

Library	Version
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.6.0

Library	Version
anyio	4.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.1
async-lru	2.0.4
async-timeout	4.0.3
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.3
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2023.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.6.0
distributed	2023.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.15.3

Library	Version
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0
httpcore	1.0.4
httpx	0.27.0
idna	2.1
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.5
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter-ydoc	2.0.1
jupyter_client	7.4.4
jupyter_collaboration	2.0.5
jupyter_core	5.3.0
jupyter_server	2.7.0
jupyter_server_fileid	0.9.1
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0

Library	Version
jupyterlab-pygments	0.1.2
jupyterlab_git	0.50.0
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.1
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	4.0.1
nbformat	5.3.0
nest-asyncio	1.5.5
notebook_shim	0.2.3
numpy	1.24.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.4.3
parso	0.8.3
partd	1.4.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0

Library	Version
ply	3.11
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5
pycparser	2.2
pycrdt	0.8.16
pycrdt-websocket	0.12.7
pydantic	2
pydantic_core	2.0.1
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
sortedcontainers	2.4.0
soupsieve	2.3.2
SQLAlchemy	2.0.30
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.9.2

Library	Version
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.1.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Table 212: Packages in Python 3.8.18 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-12-3	12.3.2-1
cuda-libraries-dev-12-3	12.3.2-1
libcudnn9-cuda-12	9.0.0.312-1
libcudnn9-dev-cuda-12	9.0.0.312-1
aiohttp	3.9.5
aiosignal	1.3.1
aiosqlite	0.20.0
annotated-types	0.6.0
anyio	4.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.1
async-lru	2.0.4
async-timeout	4.0.3

Library	Version
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
boto3	1.34.94
botocore	1.34.94
cattrs	23.2.3
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
click	8.1.7
cloudpickle	3.0.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
dask	2023.5.0
dataclasses-json	0.6.6
debugpy	1.6.7
decorator	4.4.2
deepmerge	1.1.1
defusedxml	0.6.0
distributed	2023.5.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
faiss-cpu	1.8.0
fastjsonschema	2.15.3
fonttools	4.43.0
fqdn	1.5.1
frozenlist	1.4.1
fsspec	2024.3.1
gitdb	4.0.10
GitPython	3.1.41
greenlet	3.0.3
h11	0.14.0

Library	Version
httpcore	1.0.4
httpx	0.27.0
idna	2.1
importlib-resources	5.12.0
importlib_metadata	7.1.0
impyla	0.18.0
ipykernel	6.23.0
ipython	8.10.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.4
Jinja2	3.1.3
jmespath	1.0.1
json5	0.9.5
jsonpatch	1.33
jsonpath-ng	1.6.1
jsonpointer	2.3
jsonschema	4.21.1
jsonschema-specifications	2023.12.1
jupyter-events	0.10.0
jupyter-lsp	2.2.2
jupyter-server-mathjax	0.2.6
jupyter-ydoc	2.0.1
jupyter_client	7.4.4
jupyter_collaboration	2.0.5
jupyter_core	5.3.0
jupyter_server	2.7.0
jupyter_server_fileid	0.9.1
jupyter_server_terminals	0.5.3
jupyterlab	4.1.5
jupyterlab-lsp	5.1.0
jupyterlab-pygments	0.1.2
jupyterlab_git	0.50.0
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
langchain	0.1.20
langchain-community	0.0.38
langchain-core	0.1.52

Library	Version
langchain-text-splitters	0.0.1
langsmith	0.1.56
locket	1.0.0
lsprotocol	2023.0.1
MarkupSafe	2.1.1
marshmallow	3.21.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
msgpack	1.0.8
multidict	6.0.5
mypy-extensions	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	4.0.1
nbformat	5.3.0
nest-asyncio	1.5.5
notebook_shim	0.2.3
numpy	1.24.4
orjson	3.10.3
overrides	7.7.0
packaging	23.2
pandas	2.0.3
pandocfilters	1.4.3
parso	0.8.3
partd	1.4.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	10.3.0
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
ply	3.11
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.5

Library	Version
pycparser	2.2
pycrdt	0.8.16
pycrdt-websocket	0.12.7
pydantic	2
pydantic_core	2.0.1
pygls	1.3.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6
pyzmq	25.1.2
referencing	0.34.0
regex	2024.5.10
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.18.0
s3transfer	0.10.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
sortedcontainers	2.4.0
soupsieve	2.3.2
SQLAlchemy	2.0.30
stack-data	0.6.2
tblib	3.0.0
tenacity	8.3.0
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tiktoken	0.6.0
tinycss2	1.1.1
tomli	2.0.1
toolz	0.12.1
tornado	6.3.3
traitlets	5.9.0

Library	Version
typing-inspect	0.9.0
typing_extensions	4.11.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
yarl	1.9.4
zict	3.0.0
zipp	3.15.0

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2024.05.1.

Table 213: Packages in Python 3.7.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0

Library	Version
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.41
idna	2.1
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.3
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3

Library	Version
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.2
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2

Library	Version
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

Table 214: Packages in Python 3.7.16 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1 + cuda11.8
libcudnn8-dev	8.7.0.84-1 + cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22

Library	Version
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.41
idna	2.1
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.3
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.2
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1

Library	Version
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

R 4.4 Libraries

This section lists the R 4.4 libraries that ship with ML Runtimes 2024.05.1.

Table 215: R 4.4 Libraries for Workbench

Library	Version
askpass	1.2.0
base	4.4.0
bitops	1.0-7
boot	1.3-30
brew	1.0-10
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-22
cli	3.6.2

Library	Version
cluster	2.1.6
codetools	0.2-20
colorspace	2.1-0
compiler	4.4.0
curl	5.2.1
datasets	4.4.0
fansi	1.0.6
farver	2.1.1
foreign	0.8-86
ggplot2	3.5.1
glue	1.7.0
graphics	4.4.0
grDevices	4.4.0
grid	4.4.0
gtable	0.3.5
httr	1.4.7
isoband	0.2.7
jsonlite	1.8.8
KernSmooth	2.23-22
labeling	0.4.3
lattice	0.22-6
lifecycle	1.0.4
magrittr	2.0.3
MASS	7.3-60.2
Matrix	1.7-0
methods	4.4.0
mgcv	1.9-1
mime	0.12
munsell	0.5.1
nlme	3.1-164
nnet	7.3-19
openssl	2.1.2
parallel	4.4.0
pillar	1.9.0
pkgconfig	2.0.3
png	0.1-8
R6	2.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.9

Library	Version
rlang	1.1.3
Rook	1.2
rpart	4.1.23
Rserve	1.7-0
scales	1.3.0
spatial	7.3-17
splines	4.4.0
stats	4.4.0
stats4	4.4.0
survival	3.5-8
sys	3.4.2
tcltk	4.4.0
tibble	3.2.1
tools	4.4.0
utf8	1.2.4
utils	4.4.0
vctrs	0.6.5
viridisLite	0.4.2
withr	3.0.0

ML Runtimes 2024.02.1

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2024.02.1

Note: Nvidia GPU Editions with a Workbench Editor come with CUDA 11.4.1 preinstalled.

All other Nvidia GPU Edition Runtimes come with CUDA 11.8.0 preinstalled.

Note:

Cloudera recommends upgrading to the latest ML Runtimes available, as the latest version contains possible fixes that are not available in earlier versions. For finding the latest version of ML Runtimes, see section *ML Runtimes Pre-installed Packages*. You can also check the latest version of ML Runtimes in the Archive Runtimes list.

Related Information

Adding new ML Runtimes

Archive Runtimes

Python 3.10 Libraries for Conda

This section lists the packages in Python 3.10 Conda Runtimes that ship with ML Runtimes 2024.02.1.

Table 216: Packages in Python 3.10 Conda Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.7.1
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.37
idna	3.4
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0

Library	Version
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.2
json5	0.9.11
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.23.4
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	0.5.3
nbclient	0.6.3
nbconvert	7.2.9
nbdime	3.2.0
nbformat	5.7.3
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1

Library	Version
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1

Library	Version
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.5.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
y-py	0.5.9
ypy-websocket	0.8.2

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2024.02.1.

Table 217: Packages in Python 3.11.6 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
certifi	2023.7.22
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4

Library	Version
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.26.0
ipython	8.17.2
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.2
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.5.0
jupyter_server	2.10.1
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.5
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.6
notebook_shim	0.2.3
numpy	1.25.2
overrides	7.4.0
packaging	23.2
pandas	2.1.4

Library	Version
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
Pillow	10.1.0
platformdirs	4.0.0
prometheus-client	0.18.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.16.1
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	24.0.1
referencing	0.31.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.0
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.13.0
types-python-dateutil	2.8.19.14
tzdata	2023.3
uri-template	1.3.0

Library	Version
urllib3	2.1.0
wcwidth	0.2.10
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4

Table 218: Packages in Python 3.11.6 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	4.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
certifi	2023.7.22
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.26.0
ipython	8.17.2

Library	Version
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.2
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.5.0
jupyter_server	2.10.1
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.5
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.6
notebook_shim	0.2.3
numpy	1.25.2
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
Pillow	10.1.0
platformdirs	4.0.0
prometheus-client	0.18.0
prompt-toolkit	3.0.41
psutil	5.9.6

Library	Version
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.16.1
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	24.0.1
referencing	0.31.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.0
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.13.0
types-python-dateutil	2.8.19.14
tzdata	2023.3
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.10
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2024.02.1.

Table 219: Packages in Python 3.10.9 Workbench Runtimes - Standard

Library	Version
asttokens	2.2.1
backcall	0.2.0
bitarray	2.7.3
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.1
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5

Table 220: Packages in Python 3.10.9 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	22.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.6
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4

Library	Version
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
Jinja2	3.1.2
jsonpointer	2.3
jsonschema	4.17.3
jupyter-events	0.6.3
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.5.0
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3

Library	Version
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.2.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.0.2
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.9.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1

Library	Version
websocket-client	1.5.1

Table 221: Packages in Python 3.10.9 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	22.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.6
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
Jinja2	3.1.2

Library	Version
jsonpointer	2.3
jsonschema	4.17.3
jupyter-events	0.6.3
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.5.0
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.2.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	25.0.2
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.9.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2024.02.1.

Table 222: Packages in Python 3.9.11 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0

Library	Version
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.1
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 223: Packages in Python 3.9.11 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0

Library	Version
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.1
pandas	2.1.4
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
tzdata	2023.3
urllib3	1.26.18

Library	Version
wcwidth	0.2.5
zipp	3.15.0

Table 224: Packages in Python 3.9.11 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2

Library	Version
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
packaging	23.1
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0

Library	Version
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 225: Packages in Python 3.9.11 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1

Library	Version
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
packaging	23.1
pandas	2.1.4
pandocfilters	1.5.0

Library	Version
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2024.02.1.

Table 226: Packages in Python 3.8.16 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.1
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38

Library	Version
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 227: Packages in Python 3.8.16 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4

Library	Version
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.1
pandas	2.0.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0

Library	Version
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 228: Packages in Python 3.8.16 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0

Library	Version
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
packaging	23.1
pandas	2.0.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9

Library	Version
pyrsistent	0.18.1
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 229: Packages in Python 3.8.16 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0

Library	Version
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4

Library	Version
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
packaging	23.1
pandas	2.0.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pytz	2023.3.post1
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
tzdata	2023.3
urllib3	1.26.18
wcwidth	0.2.5

Library	Version
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2024.02.1.

Table 230: Packages in Python 3.7.16 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Table 231: Packages in Python 3.7.16 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1

Library	Version
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Table 232: Packages in Python 3.7.16 PBJ Workbench - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22

Library	Version
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	21.3

Library	Version
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Table 233: Packages in Python 3.7.16 PBJ Workbench - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8

Library	Version
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3

Library	Version
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18

Library	Version
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2024.02.1.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-reflect	2.11.12
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2024.02.1.

Table 234: Packages in Python 3.11.6 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	4.1.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
Babel	2.13.1
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
cattrs	23.2.2
certifi	2023.11.17

Library	Version
cffi	1.16.0
charset-normalizer	3.3.2
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
docstring-to-markdown	0.13
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
gitdb	4.0.11
GitPython	3.1.40
idna	3.6
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.2
json5	0.9.14
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.9.0
jupyter-lsp	2.2.1
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.5
jupyter_client	8.6.0
jupyter_core	5.5.0
jupyter_server	2.11.1
jupyter_server_fileid	0.9.0
jupyter_server_terminals	0.4.4
jupyter_server_ydoc	0.6.1

Library	Version
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.25.2
kerberos	1.3.1
kiwisolver	1.4.5
lsprotocol	2023.0.0
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbdime	3.2.1
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
overrides	7.4.0
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.9.0
pickleshare	0.7.5
Pillow	10.1.0
platformdirs	4.0.0
prometheus-client	0.19.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pygls	1.2.0

Library	Version
Pygments	2.17.2
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.1
referencing	0.31.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.1
Send2Trash	1.8.2
six	1.16.0
smmap	5.0.1
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.14.0
types-python-dateutil	2.8.19.14
tzdata	2023.3
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.12
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4
y-py	0.6.2
ypy-websocket	0.8.4

Table 235: Packages in Python 3.11.6 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1

Library	Version
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	4.1.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
Babel	2.13.1
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
cattrs	23.2.2
certifi	2023.11.17
cffi	1.16.0
charset-normalizer	3.3.2
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
docstring-to-markdown	0.13
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
gitdb	4.0.11
GitPython	3.1.40
idna	3.6
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0

Library	Version
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.2
json5	0.9.14
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.9.0
jupyter-lsp	2.2.1
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.5
jupyter_client	8.6.0
jupyter_core	5.5.0
jupyter_server	2.11.1
jupyter_server_fileid	0.9.0
jupyter_server_terminals	0.4.4
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.25.2
kerberos	1.3.1
kiwisolver	1.4.5
lsprotocol	2023.0.0
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbdime	3.2.1
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
overrides	7.4.0

Library	Version
packaging	23.2
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.9.0
pickleshare	0.7.5
Pillow	10.1.0
platformdirs	4.0.0
prometheus-client	0.19.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pygls	1.2.0
Pygments	2.17.2
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0.1
pyzmq	25.1.1
referencing	0.31.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.1
Send2Trash	1.8.2
six	1.16.0
smmap	5.0.1
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1

Library	Version
tornado	6.3.3
traitlets	5.14.0
types-python-dateutil	2.8.19.14
tzdata	2023.3
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.12
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4
y-py	0.6.2
ypy-websocket	0.8.4

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2024.02.1.

Table 236: Packages in Python 3.10.9 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7

Library	Version
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.7.1
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.37
idna	3.4
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.2
json5	0.9.11
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.23.4
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.20.0

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	0.5.3
nbclient	0.6.3
nbconvert	7.2.9
nbdime	3.2.0
nbformat	5.7.3
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7

Library	Version
pytz	2023.3.post1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.5.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
y-py	0.5.9
ypy-websocket	0.8.2

Table 237: Packages in Python 3.10.9 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0

Library	Version
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.7.1
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.37
idna	3.4
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0

Library	Version
Jinja2	3.1.2
json5	0.9.11
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.23.4
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	0.5.3
nbclient	0.6.3
nbconvert	7.2.9
nbdime	3.2.0
nbformat	5.7.3
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1
pandas	2.1.4
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0

Library	Version
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.5.0

Library	Version
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
y-py	0.5.9
ypy-websocket	0.8.2

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2024.02.1.

Table 238: Packages in Python 3.9.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7

Library	Version
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.37
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1

Library	Version
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
packaging	23.1
pandas	2.1.4
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7

Library	Version
pytz	2023.3.post1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Table 239: Packages in Python 3.9.11 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0

Library	Version
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.37
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0

Library	Version
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
packaging	23.1

Library	Version
pandas	2.1.4
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2023.3.post1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1

Library	Version
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2024.02.1.

Table 240: Packages in Python 3.8.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0

Library	Version
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.37
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1

Library	Version
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
packaging	23.1
pandas	2.0.3
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7

Library	Version
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Table 241: Packages in Python 3.8.16 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.37

Library	Version
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0

Library	Version
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
packaging	23.1
pandas	2.0.3
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0

Library	Version
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
tzdata	2023.3
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2024.02.1.

Table 242: Packages in Python 3.7.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1

Library	Version
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.37
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0

Library	Version
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0

Library	Version
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

Table 243: Packages in Python 3.7.16 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3

Library	Version
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.37
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6

Library	Version
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.15.1
pyparsing	3.0.9

Library	Version
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

R 4.3 Libraries

This section lists the R 4.3 libraries that ship with ML Runtimes 2024.02.1.

Table 244: PBJ R 4.3.1 Libraries for Workbench

Library	Version
anyio	3.7.0

Library	Version
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.12.0
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyterlab-pygments	0.1.2
MarkupSafe	2.0.1
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4

Library	Version
notebook	6.5.4
notebook-shim	0.2.3
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pycparser	2.21
Pygments	2.15.1
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 245: R 4.3.1 Libraries for Workbench

Library	Version
askpass	1.1
base	4.3.1
bitops	1.0-7
boot	1.3-28.1

Library	Version
brew	1.0-8
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-22
cli	3.6.1
cluster	2.1.4
codetools	0.2-19
colorspace	2.1-0
compiler	4.3.1
curl	5.0.1
datasets	4.3.1
fansi	1.0.4
farver	2.1.1
foreign	0.8-84
ggplot2	3.4.2
glue	1.6.2
graphics	4.3.1
grDevices	4.3.1
grid	4.3.1
gtable	0.3.3
httr	1.4.6
isoband	0.2.7
jsonlite	1.8.7
KernSmooth	2.23-21
labeling	0.4.2
lattice	0.21-8
lifecycle	1.0.3
magrittr	2.0.3
MASS	7.3-60
Matrix	1.5-4.1
methods	4.3.1
mgcv	1.8-42
mime	0.12
munsell	0.5.0
nlme	3.1-162
nnet	7.3-19
openssl	2.0.6
parallel	4.3.1

Library	Version
pillar	1.9.0
pkgconfig	2.0.3
png	0.1-8
R6	2.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.8
rlang	1.1.1
Rook	1.2
rpart	4.1.19
Rserve	1.7-0
scales	1.2.1
spatial	7.3-16
splines	4.3.1
stats	4.3.1
stats4	4.3.1
survival	3.5-5
sys	3.4.2
tcltk	4.3.1
tibble	3.2.1
tools	4.3.1
utf8	1.2.3
utils	4.3.1
vctrs	0.6.3
viridisLite	0.4.2
withr	2.5.0

ML Runtimes 2023.12.1

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2023.12.1

Note: Nvidia GPU Editions with a Workbench Editor come with CUDA 11.4.1 preinstalled.

All other Nvidia GPU Edition Runtimes come with CUDA 11.8.0 preinstalled.

Python 3.10 Libraries for Conda

This section lists the packages in Python 3.10 Conda Runtimes that ship with ML Runtimes 2023.12.1.

Table 246: Packages in Python 3.10 Conda Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.7.1
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.35
idna	3.4
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0

Library	Version
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.2
json5	0.9.11
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.23.4
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	0.5.3
nbclient	0.6.3
nbconvert	7.2.9
nbdime	3.2.0
nbformat	5.7.3
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1

Library	Version
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0

Library	Version
typeguard	2.13.3
typing_extensions	4.5.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
y-py	0.5.9
ypy-websocket	0.8.2

Python 3.11 Libraries for Workbench

This section lists the packages in Python 3.11 Workbench Runtimes that ship with ML Runtimes 2023.12.1.

Table 247: Packages in Python 3.11.6 PBJ Workbench Runtimes - Standard

Library	Version
anyio	4.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
certifi	2023.7.22
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3

Library	Version
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.26.0
ipython	8.17.2
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.2
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.5.0
jupyter_server	2.10.1
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.5
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.6
notebook_shim	0.2.3
numpy	1.25.2
overrides	7.4.0
packaging	23.2
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
Pillow	10.1.0

Library	Version
platformdirs	4.0.0
prometheus-client	0.18.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.16.1
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0.1
pyzmq	24.0.1
referencing	0.31.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.0
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.13.0
types-python-dateutil	2.8.19.14
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.10
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4

Table 248: Packages in Python 3.11.6 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	4.0.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
certifi	2023.7.22
cffi	1.16.0
charset-normalizer	3.3.2
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.26.0
ipython	8.17.2
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
Jinja2	3.1.2
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1

Library	Version
jupyter-events	0.9.0
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.5.0
jupyter_server	2.10.1
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.5
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.6
notebook_shim	0.2.3
numpy	1.25.2
overrides	7.4.0
packaging	23.2
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
Pillow	10.1.0
platformdirs	4.0.0
prometheus-client	0.18.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.16.1
pyparsing	3.1.1
python-dateutil	2.8.2

Library	Version
python-json-logger	2.0.7
PyYAML	6.0.1
pyzmq	24.0.1
referencing	0.31.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.0
Send2Trash	1.8.2
six	1.16.0
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.13.0
types-python-dateutil	2.8.19.14
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.10
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2023.12.1.

Table 249: Packages in Python 3.10.9 Workbench Runtimes - Standard

Library	Version
asttokens	2.2.1
backcall	0.2.0
bitarray	2.7.3
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3

Library	Version
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2

Library	Version
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
urllib3	1.26.18
wcwidth	0.2.5

Table 250: Packages in Python 3.10.9 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	22.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.6
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2

Library	Version
Jinja2	3.1.2
jsonpointer	2.3
jsonschema	4.17.3
jupyter-events	0.6.3
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.5.0
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.2.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	25.0.2
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.9.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1

Table 251: Packages in Python 3.10.9 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	22.2.0

Library	Version
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.6
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
Jinja2	3.1.2
jsonpointer	2.3
jsonschema	4.17.3
jupyter-events	0.6.3
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.5.0
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6

Library	Version
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.2.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	25.0.2
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1

Library	Version
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.9.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2023.12.1.

Table 252: Packages in Python 3.9.11 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2

Library	Version
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 253: Packages in Python 3.9.11 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1

Library	Version
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.25.2
packaging	23.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0

Library	Version
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 254: Packages in Python 3.9.11 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4

Library	Version
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1

Library	Version
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 255: Packages in Python 3.9.11 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.7.0
argon2-cffi	21.3.0

Library	Version
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0

Library	Version
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2

Library	Version
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2023.12.1.

Table 256: Packages in Python 3.8.16 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4

Library	Version
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 257: Packages in Python 3.8.16 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0

Library	Version
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.4
packaging	23.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.15.0

Table 258: Packages in Python 3.8.16 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3

Library	Version
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 259: Packages in Python 3.8.16 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0

Library	Version
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10

Library	Version
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5

Library	Version
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2023.12.1.

Table 260: Packages in Python 3.7.16 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Table 261: Packages in Python 3.7.16 Workbench Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-4	11.4.1-1
libcudnn8	8.2.2.26-1+cuda11.4
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1

Library	Version
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
zipp	3.8.0

Table 262: Packages in Python 3.7.16 PBJ Workbench - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22

Library	Version
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	21.3

Library	Version
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Table 263: Packages in Python 3.7.16 PBJ Workbench - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8

Library	Version
libcudnn8-dev	8.7.0.84-1+cuda11.8
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3

Library	Version
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.18

Library	Version
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2023.12.1.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-reflect	2.11.12
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.11 Libraries for JupyterLab

This section lists the packages in Python 3.11 JupyterLab Runtimes that ship with ML Runtimes 2023.12.1.

Table 264: Packages in Python 3.11.6 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	4.1.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
Babel	2.13.1
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
cattrs	23.2.2
certifi	2023.11.17

Library	Version
cffi	1.16.0
charset-normalizer	3.3.2
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
docstring-to-markdown	0.13
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
gitdb	4.0.11
GitPython	3.1.40
idna	3.6
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.2
json5	0.9.14
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.9.0
jupyter-lsp	2.2.1
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.5
jupyter_client	8.6.0
jupyter_core	5.5.0
jupyter_server	2.11.1
jupyter_server_fileid	0.9.0
jupyter_server_terminals	0.4.4
jupyter_server_ydoc	0.6.1

Library	Version
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.25.2
kerberos	1.3.1
kiwisolver	1.4.5
lsprotocol	2023.0.0
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbdime	3.2.1
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
overrides	7.4.0
packaging	23.2
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.9.0
pickleshare	0.7.5
Pillow	10.1.0
platformdirs	4.0.0
prometheus-client	0.19.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pygls	1.2.0
Pygments	2.17.2

Library	Version
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0.1
pyzmq	25.1.1
referencing	0.31.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.1
Send2Trash	1.8.2
six	1.16.0
smmap	5.0.1
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.14.0
types-python-dateutil	2.8.19.14
uri-template	1.3.0
urllib3	2.1.0
wcwidth	0.2.12
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4
y-py	0.6.2
ypy-websocket	0.8.4

Table 265: Packages in Python 3.11.6 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0

Library	Version
aiosqlite	0.19.0
anyio	4.1.0
argon2-cffi	23.1.0
argon2-cffi-bindings	21.2.0
arrow	1.3.0
asttokens	2.4.1
attrs	23.1.0
Babel	2.13.1
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.8.3
bleach	6.1.0
cattrs	23.2.2
certifi	2023.11.17
cffi	1.16.0
charset-normalizer	3.3.2
colorama	0.4.6
comm	0.2.0
contourpy	1.2.0
cycler	0.12.1
debugpy	1.8.0
decorator	5.1.1
defusedxml	0.7.1
docstring-to-markdown	0.13
executing	2.0.1
fastjsonschema	2.19.0
fonttools	4.44.3
fqdn	1.5.1
gitdb	4.0.11
GitPython	3.1.40
idna	3.6
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.19.1
jedi-language-server	0.41.2
Jinja2	3.1.2

Library	Version
json5	0.9.14
jsonpointer	2.4
jsonschema	4.20.0
jsonschema-specifications	2023.11.1
jupyter-events	0.9.0
jupyter-lsp	2.2.1
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.5
jupyter_client	8.6.0
jupyter_core	5.5.0
jupyter_server	2.11.1
jupyter_server_fileid	0.9.0
jupyter_server_terminals	0.4.4
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab_pygments	0.3.0
jupyterlab_server	2.25.2
kerberos	1.3.1
kiwisolver	1.4.5
lsprotocol	2023.0.0
MarkupSafe	2.1.3
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	3.0.2
nbclassic	1.0.0
nbclient	0.9.0
nbconvert	7.11.0
nbdime	3.2.1
nbformat	5.9.2
nest-asyncio	1.5.8
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
overrides	7.4.0
packaging	23.2
pandocfilters	1.5.0
parso	0.8.3

Library	Version
pexpect	4.9.0
pickleshare	0.7.5
Pillow	10.1.0
platformdirs	4.0.0
prometheus-client	0.19.0
prompt-toolkit	3.0.41
psutil	5.9.6
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pygls	1.2.0
Pygments	2.17.2
pyparsing	3.1.1
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0.1
pyzmq	25.1.1
referencing	0.31.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
rpds-py	0.13.1
Send2Trash	1.8.2
six	1.16.0
smmap	5.0.1
sniffio	1.3.0
soupsieve	2.5
stack-data	0.6.3
terminado	0.18.0
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.3
traitlets	5.14.0
types-python-dateutil	2.8.19.14
uri-template	1.3.0
urllib3	2.1.0

Library	Version
wcwidth	0.2.12
webcolors	1.13
webencodings	0.5.1
websocket-client	1.6.4
y-py	0.6.2
ypy-websocket	0.8.4

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2023.12.1.

Table 266: Packages in Python 3.10.9 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.7.1
docstring-to-markdown	0.12
entrypoints	0.4

Library	Version
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.35
idna	3.4
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.2
json5	0.9.11
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.23.4
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.3

Library	Version
mistune	2.0.5
nbclassic	0.5.3
nbclient	0.6.3
nbconvert	7.2.9
nbdime	3.2.0
nbformat	5.7.3
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0

Library	Version
smmap	5.0.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.5.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
y-py	0.5.9
ypy-websocket	0.8.2

Table 267: Packages in Python 3.10.9 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2

Library	Version
bitarray	2.7.3
bleach	6.0.0
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.7.1
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.35
idna	3.4
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.2
json5	0.9.11
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.23.4
jupyter-server-mathjax	0.2.6

Library	Version
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	0.5.3
nbclient	0.6.3
nbconvert	7.2.9
nbdime	3.2.0
nbformat	5.7.3
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.2
numpy	1.25.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1

Library	Version
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.5.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
y-py	0.5.9
ypy-websocket	0.8.2

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2023.12.1.

Table 268: Packages in Python 3.9.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.35
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0

Library	Version
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4

Library	Version
notebook_shim	0.2.3
numpy	1.25.2
packaging	23.1
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1

Library	Version
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Table 269: Packages in Python 3.9.11 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0

Library	Version
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.35
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1

Library	Version
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.25.2
packaging	23.1
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2023.12.1.

Table 270: Packages in Python 3.8.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.35
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0

Library	Version
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4

Library	Version
notebook_shim	0.2.3
numpy	1.24.4
packaging	23.1
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0

Library	Version
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Table 271: Packages in Python 3.8.16 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22

Library	Version
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.35
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0

Library	Version
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
packaging	23.1
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20

Library	Version
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2023.12.1.

Table 272: Packages in Python 3.7.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.35
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0

Library	Version
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0

Library	Version
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1

Library	Version
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

Table 273: Packages in Python 3.7.16 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
cuda-libraries-11-8	11.8.0-1
cuda-libraries-dev-11-8	11.8.0-1
libcudnn8	8.7.0.84-1+cuda11.8
libcudnn8-dev	8.7.0.84-1+cuda11.8
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0

Library	Version
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.35
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3

Library	Version
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.24.4
packaging	23.1
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	10.0.1
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1

Library	Version
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.18
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

R 4.3 Libraries

This section lists the R 4.3 libraries that ship with ML Runtimes 2023.12.1.

Table 274: PBJ R 4.3.1 Libraries for Workbench

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bleach	4.1.0

Library	Version
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.12.0
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyterlab-pygments	0.1.2
MarkupSafe	2.0.1
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook-shim	0.2.3
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5

Library	Version
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pycparser	2.21
Pygments	2.15.1
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.18
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 275: R 4.3.1 Libraries for Workbench

Library	Version
askpass	1.1
base	4.3.1
bitops	1.0-7
boot	1.3-28.1
brew	1.0-8
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-22
cli	3.6.1
cluster	2.1.4

Library	Version
codetools	0.2-19
colorspace	2.1-0
compiler	4.3.1
curl	5.0.1
datasets	4.3.1
fansi	1.0.4
farver	2.1.1
foreign	0.8-84
ggplot2	3.4.2
glue	1.6.2
graphics	4.3.1
grDevices	4.3.1
grid	4.3.1
gtable	0.3.3
httr	1.4.6
isoband	0.2.7
jsonlite	1.8.7
KernSmooth	2.23-21
labeling	0.4.2
lattice	0.21-8
lifecycle	1.0.3
magrittr	2.0.3
MASS	7.3-60
Matrix	1.5-4.1
methods	4.3.1
mgcv	1.8-42
mime	0.12
munsell	0.5.0
nlme	3.1-162
nnet	7.3-19
openssl	2.0.6
parallel	4.3.1
pillar	1.9.0
pkgconfig	2.0.3
png	0.1-8
R6	2.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.8
rlang	1.1.1

Library	Version
Rook	1.2
rpart	4.1.19
Rserve	1.7-0
scales	1.2.1
spatial	7.3-16
splines	4.3.1
stats	4.3.1
stats4	4.3.1
survival	3.5-5
sys	3.4.2
tcltk	4.3.1
tibble	3.2.1
tools	4.3.1
utf8	1.2.3
utils	4.3.1
vctrs	0.6.3
viridisLite	0.4.2
withr	2.5.0

ML Runtimes 2023.08.2

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2023.08.2

Note: Nvidia GPU Editions with a Workbench Editor come with CUDA 11.4.1 preinstalled.
All other Nvidia GPU Edition Runtimes come with CUDA 11.8.0 preinstalled.

Python 3.10 Libraries for Conda

This section lists the packages in Python 3.10 Conda Runtimes that ship with ML Runtimes 2023.08.2.

Table 276: Packages in Python 3.10 Conda Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1

Library	Version
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.7.1
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.32
idna	3.4
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.2
json5	0.9.11
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2

Library	Version
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.23.4
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	0.5.3
nbclient	0.6.3
nbconvert	7.2.9
nbdime	3.2.0
nbformat	5.7.3
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.2
numpy	1.24.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.5.0
platformdirs	3.5.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5

Library	Version
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.5.0
uri-template	1.2.0
urllib3	1.26.14
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
y-py	0.5.9

Library	Version
ypy-websocket	0.8.2

Python 3.10 Libraries for Workbench

This section lists the packages in Python 3.10 Workbench Runtimes that ship with ML Runtimes 2023.08.2.

Table 277: Packages in Python 3.10.9 Workbench Runtimes - Standard

Library	Version
asttokens	2.2.1
backcall	0.2.0
bitarray	2.7.3
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.24.2
packaging	23.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.5.0

Library	Version
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
urllib3	1.26.6
wcwidth	0.2.5

Table 278: Packages in Python 3.10.9 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	22.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.6

Library	Version
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
Jinja2	3.1.2
jsonpointer	2.3
jsonschema	4.17.3
jupyter-events	0.6.3
jupyter-kernel-gateway	2.5.2
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.5.0
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.24.2
packaging	23.1

Library	Version
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.5.0
platformdirs	3.2.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	25.0.2
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.9.0
uri-template	1.2.0
urllib3	1.26.15
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1

Library	Version
websocket-client	1.5.1

Table 279: Packages in Python 3.10.9 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	22.2.0
backcall	0.2.0
beautifulsoup4	4.12.0
bitarray	2.7.3
bleach	6.0.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.6
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
idna	3.4
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
Jinja2	3.1.2
jsonpointer	2.3
jsonschema	4.17.3
jupyter-events	0.6.3
jupyter-kernel-gateway	2.5.2

Library	Version
jupyter_client	7.4.9
jupyter_core	5.3.0
jupyter_server	2.5.0
jupyter_server_terminals	0.4.4
jupyterlab-pygments	0.2.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.6
mistune	2.0.5
nbclassic	0.5.5
nbclient	0.7.3
nbconvert	7.3.0
nbformat	5.8.0
nest-asyncio	1.5.6
notebook	6.5.3
notebook_shim	0.2.2
numpy	1.24.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.5.0
platformdirs	3.2.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0

Library	Version
pyzmq	25.0.2
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.9.0
uri-template	1.2.0
urllib3	1.26.15
wcwidth	0.2.6
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2023.08.2.

Table 280: Packages in Python 3.9.11 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2

Library	Version
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.22.0
packaging	23.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3

Library	Version
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.15.0

Table 281: Packages in Python 3.9.11 Workbench Runtimes - Nvidia GPU Edition

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.22.0
packaging	23.1

Library	Version
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.15.0

Table 282: Packages in Python 3.9.11 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22

Library	Version
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4

Library	Version
notebook_shim	0.2.3
numpy	1.22.0
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 283: Packages in Python 3.9.11 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1

Library	Version
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.22.0
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0

Library	Version
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2023.08.2.

Table 284: Packages in Python 3.8.16 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
asttokens	2.2.1
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2

Library	Version
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.22.0
packaging	23.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.15.0

Table 285: Packages in Python 3.8.16 Workbench Runtimes - Nvidia GPU Edition

Library	Version
argcomplete	2.0.0
asttokens	2.2.1

Library	Version
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
entrypoints	0.4
executing	1.2.0
fonttools	4.39.3
idna	3.2
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
jedi	0.18.2
jupyter-client	7.2.2
jupyter_core	5.3.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.7.0
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.22.0
packaging	23.1
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
platformdirs	3.5.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1

Library	Version
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
stack-data	0.6.2
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.3.2
traitlets	5.9.0
typing_extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.15.0

Table 286: Packages in Python 3.8.16 PBJ Workbench Runtimes - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1

Library	Version
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.22.0
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0

Library	Version
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 287: Packages in Python 3.8.16 PBJ Workbench Runtimes - Nvidia GPU Edition

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0

Library	Version
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
contourpy	1.0.7
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
fonttools	4.39.3
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4

Library	Version
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.22.0
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2023.08.2.

Table 288: Packages in Python 3.7.16 Workbench Runtimes - Standard

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2

Library	Version
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 289: Packages in Python 3.7.16 Workbench Runtimes - Nvidia GPU Edition

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2023.7.22
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter_core	4.12.0
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0

Library	Version
pickleshare	0.7.5
Pillow	9.3.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.15.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
six	1.16.0
thrift	0.16.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 290: Packages in Python 3.7.16 PBJ Workbench - Standard

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4

Library	Version
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27

Library	Version
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Table 291: Packages in Python 3.7.16 PBJ Workbench - Nvidia GPU Edition

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bitarray	2.6.0
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0

Library	Version
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.18.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyter_core	4.12.0
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.8.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	21.3
pandocfilters	1.5.0

Library	Version
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
terminado	0.13.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.7.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2023.08.2.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12

Library	Version
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-reflect	2.11.12
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.10 Libraries for JupyterLab

This section lists the packages in Python 3.10 JupyterLab Runtimes that ship with ML Runtimes 2023.08.2.

Table 292: Packages in Python 3.10.9 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
cattrs	22.2.0
certifi	2023.7.22
cffi	1.15.1
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.7.1
docstring-to-markdown	0.12
entrypoints	0.4

Library	Version
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.32
idna	3.4
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.2
json5	0.9.11
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.23.4
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.3

Library	Version
mistune	2.0.5
nbclassic	0.5.3
nbclient	0.6.3
nbconvert	7.2.9
nbdime	3.2.0
nbformat	5.7.3
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.2
numpy	1.24.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.5.0
platformdirs	3.5.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0

Library	Version
smmap	5.0.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.5.0
uri-template	1.2.0
urllib3	1.26.14
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
y-py	0.5.9
ypy-websocket	0.8.2

Table 293: Packages in Python 3.10.9 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.6.2
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
arrow	1.2.3
asttokens	2.2.1
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.2
bitarray	2.7.3
bleach	6.0.0
cattrs	22.2.0
certifi	2023.7.22

Library	Version
cffi	1.15.1
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.7.1
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.16.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.32
idna	3.4
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.2
json5	0.9.11
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.23.4
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1

Library	Version
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.2.2
jupyterlab_server	2.20.0
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.2
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	0.5.3
nbclient	0.6.3
nbconvert	7.2.9
nbdime	3.2.0
nbformat	5.7.3
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.2
numpy	1.24.2
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.5.0
platformdirs	3.5.0
prometheus-client	0.16.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1

Library	Version
pyparsing	3.0.9
pyrsistent	0.19.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.3.0
soupsieve	2.4
stack-data	0.6.2
terminado	0.17.1
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.2.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.5.0
uri-template	1.2.0
urllib3	1.26.14
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.5.1
y-py	0.5.9
ypy-websocket	0.8.2

Python 3.9 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2023.08.2.

Table 294: Packages in Python 3.9.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.32
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0

Library	Version
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4

Library	Version
notebook_shim	0.2.3
numpy	1.22.0
packaging	23.1
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1

Library	Version
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.6
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Table 295: Packages in Python 3.9.11 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0

Library	Version
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.32
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2

Library	Version
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.22.0
packaging	23.1
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7

Library	Version
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.6
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2023.08.2.

Table 296: Packages in Python 3.8.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0

Library	Version
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.32
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0

Library	Version
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.22.0
packaging	23.1
pandocfilters	1.4.3
parso	0.8.3

Library	Version
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0

Library	Version
typeguard	2.13.3
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.6
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Table 297: Packages in Python 3.8.16 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
asttokens	2.2.1
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cattrs	22.2.0
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
comm	0.1.3
contourpy	1.0.7
cycler	0.11.0
debugpy	1.6.7
decorator	4.4.2
defusedxml	0.6.0

Library	Version
docstring-to-markdown	0.12
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.15.3
fonttools	4.39.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.32
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.22.0
ipython	8.10.0
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.18.2
jedi-language-server	0.40.0
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.6.3
jupyter-lsp	2.1.0
jupyter-server	1.24.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	5.3.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	4.1.0
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4

Library	Version
lsprotocol	2023.0.0a1
MarkupSafe	2.1.1
matplotlib	3.7.0
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.22.0
packaging	23.1
pandocfilters	1.4.3
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
platformdirs	3.5.0
prometheus-client	0.9.0
prompt-toolkit	3.0.38
psutil	5.9.5
ptyprocess	0.6.0
pure-eval	0.2.2
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
pydantic	1.10.7
pygls	1.0.1
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0

Library	Version
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
stack-data	0.6.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.3.2
traitlets	5.9.0
typeguard	2.13.3
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.6
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.15.0

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2023.08.2.

Table 298: Packages in Python 3.7.16 JupyterLab Runtimes - Standard

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0
argcomplete	2.0.0

Library	Version
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.32
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0
jupyter-lsp	1.5.1

Library	Version
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20

Library	Version
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.6
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

Table 299: Packages in Python 3.7.16 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
aiofiles	22.1.0
aiosqlite	0.19.0
anyio	3.3.0

Library	Version
argcomplete	2.0.0
argon2-cffi	20.1.0
arrow	1.2.3
async-generator	1.10
attrs	23.1.0
Babel	2.12.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
cached-property	1.5.2
certifi	2023.7.22
cffi	1.14.4
charset-normalizer	3.1.0
colorama	0.4.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
fqdn	1.5.1
gitdb	4.0.10
GitPython	3.1.32
idna	2.10
importlib-metadata	4.11.3
importlib-resources	5.12.0
impyla	0.18.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
isoduration	20.11.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonpointer	2.3
jsonschema	4.17.3
jupyter-client	7.2.2
jupyter-events	0.5.0

Library	Version
jupyter-lsp	1.5.1
jupyter-server	1.21.0
jupyter-server-mathjax	0.2.6
jupyter-ydoc	0.2.4
jupyter_core	4.12.0
jupyter_server_fileid	0.9.0
jupyter_server_ydoc	0.6.1
jupyterlab	3.6.0
jupyterlab-git	0.41.0
jupyterlab-lsp	3.10.2
jupyterlab-pygments	0.1.2
jupyterlab_server	2.22.1
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.1
nbconvert	7.4.0
nbdime	3.2.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.5.4
notebook_shim	0.2.3
numpy	1.21.6
packaging	23.1
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.3.0
pkgutil_resolve_name	1.3.10
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1

Library	Version
pycparser	2.20
Pygments	2.15.1
pyparsing	3.0.9
pyrsistent	0.17.3
python-dateutil	2.8.2
python-json-logger	2.0.7
pytz	2021.1
PyYAML	6.0
pyzmq	22.3.0
requests	2.31.0
rfc3339-validator	0.1.4
rfc3986-validator	0.1.1
Send2Trash	1.8.0
six	1.16.0
smmap	5.0.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.16.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tomli	2.0.1
tornado	6.1
traitlets	5.1.1
typing_extensions	4.3.0
uri-template	1.2.0
urllib3	1.26.6
wcwidth	0.2.5
webcolors	1.13
webencodings	0.5.1
websocket-client	1.2.1
y-py	0.5.9
ypy-websocket	0.8.2
zipp	3.8.0

R 4.3 Libraries

This section lists the R 4.3 libraries that ship with ML Runtimes 2023.08.2.

Table 300: PBJ R 4.3.1 Libraries for Workbench

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.12.0
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyterlab-pygments	0.1.2
MarkupSafe	2.0.1
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10

Library	Version
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook-shim	0.2.3
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pycparser	2.21
Pygments	2.15.1
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 301: R 4.1.3 Libraries for Workbench

Library	Version
askpass	1.1

Library	Version
base	4.3.1
bitops	1.0-7
boot	1.3-28.1
brew	1.0-8
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-22
cli	3.6.1
cluster	2.1.4
codetools	0.2-19
colorspace	2.1-0
compiler	4.3.1
curl	5.0.0
datasets	4.3.1
fansi	1.0.4
farver	2.1.1
foreign	0.8-84
ggplot2	3.4.2
glue	1.6.2
graphics	4.3.1
grDevices	4.3.1
grid	4.3.1
gtable	0.3.3
httr	1.4.6
isoband	0.2.7
jsonlite	1.8.4
KernSmooth	2.23-21
labeling	0.4.2
lattice	0.21-8
lifecycle	1.0.3
magrittr	2.0.3
MASS	7.3-60
Matrix	1.5-4.1
methods	4.3.1
mgcv	1.8-42
mime	0.12
munsell	0.5.0
nlme	3.1-162

Library	Version
nnet	7.3-19
openssl	2.0.6
parallel	4.3.1
pillar	1.9.0
pkgconfig	2.0.3
png	0.1-8
R6	2.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.8
rlang	1.1.1
Rook	1.2
rpart	4.1.19
Rserve	1.7-0
scales	1.2.1
spatial	7.3-16
splines	4.3.1
stats	4.3.1
stats4	4.3.1
survival	3.5-5
sys	3.4.1
tcltk	4.3.1
tibble	3.2.1
tools	4.3.1
utf8	1.2.3
utils	4.3.1
vctrs	0.6.2
viridisLite	0.4.2
withr	2.5.0

R 4.1 Libraries

This section lists the R 4.1 libraries that ship with ML Runtimes 2023.08.2.

Table 302: PBJ R 4.1.1 Libraries for Workbench

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1

Library	Version
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.12.0
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyterlab-pygments	0.1.2
MarkupSafe	2.0.1
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook-shim	0.2.3
packaging	23.1

Library	Version
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pycparser	2.21
Pygments	2.15.1
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 303: R 4.1.1 Libraries for Workbench

Library	Version
askpass	1.1
base	4.1.1
bitops	1.0-7
boot	1.3-28
brew	1.0-8
Cairo	1.2-0
caTools	1.18.2

Library	Version
cdsw	2.1
class	7.3-19
cli	3.6.1
cluster	2.1.2
codetools	0.2-18
colorspace	2.1-0
compiler	4.1.1
curl	5.0.0
datasets	4.1.1
fansi	1.0.4
farver	2.1.1
foreign	0.8-81
ggplot2	3.4.2
glue	1.6.2
graphics	4.1.1
grDevices	4.1.1
grid	4.1.1
gtable	0.3.3
httr	1.4.6
isoband	0.2.7
jsonlite	1.8.4
KernSmooth	2.23-20
labeling	0.4.2
lattice	0.20-44
lifecycle	1.0.3
magrittr	2.0.3
MASS	7.3-54
Matrix	1.3-4
methods	4.1.1
mgcv	1.8-36
mime	0.12
munsell	0.5.0
nlme	3.1-152
nnet	7.3-16
openssl	2.0.6
parallel	4.1.1
pillar	1.9.0
pkgconfig	2.0.3
png	0.1-8

Library	Version
R6	2.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.8
rlang	1.1.1
Rook	1.2
rpart	4.1-15
Rserve	1.7-0
scales	1.2.1
spatial	7.3-14
splines	4.1.1
stats	4.1.1
stats4	4.1.1
survival	3.2-11
sys	3.4.1
tcltk	4.1.1
tibble	3.2.1
tools	4.1.1
utf8	1.2.3
utils	4.1.1
vctrs	0.6.2
viridisLite	0.4.2
withr	2.5.0

R 4.0 Libraries

This section lists the R 4.0 libraries that ship with ML Runtimes 2023.08.2.

Table 304: PBJ R 4.0.5 Libraries for Workbench

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0

Library	Version
charset-normalizer	2.0.11
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1
executing	1.2.0
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.12.0
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyterlab-pygments	0.1.2
MarkupSafe	2.0.1
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook-shim	0.2.3
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
prometheus-client	0.13.1
prompt-toolkit	3.0.38

Library	Version
ptyprocess	0.7.0
pure-eval	0.2.2
pycparser	2.21
Pygments	2.15.1
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 305: R 4.0.5 Libraries for Workbench

Library	Version
askpass	1.1
base	4.0.5
bitops	1.0-7
boot	1.3-27
brew	1.0-8
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-18
cli	3.6.1
cluster	2.1.1
codetools	0.2-18
colorspace	2.1-0

Library	Version
compiler	4.0.5
curl	5.0.0
datasets	4.0.5
fansi	1.0.4
farver	2.1.1
foreign	0.8-81
ggplot2	3.4.2
glue	1.6.2
graphics	4.0.5
grDevices	4.0.5
grid	4.0.5
gtable	0.3.3
httr	1.4.6
isoband	0.2.7
jsonlite	1.8.4
KernSmooth	2.23-18
labeling	0.4.2
lattice	0.20-41
lifecycle	1.0.3
magrittr	2.0.3
MASS	7.3-53.1
Matrix	1.3-2
methods	4.0.5
mgcv	1.8-34
mime	0.12
munsell	0.5.0
nlme	3.1-152
nnet	7.3-15
openssl	2.0.6
parallel	4.0.5
pillar	1.9.0
pkgconfig	2.0.3
png	0.1-8
R6	2.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.8
rlang	1.1.1
Rook	1.2
rpart	4.1-15

Library	Version
Rserve	1.7-0
scales	1.2.1
spatial	7.3-13
splines	4.0.5
stats	4.0.5
stats4	4.0.5
survival	3.2-10
sys	3.4.1
tcltk	4.0.5
tibble	3.2.1
tools	4.0.5
utf8	1.2.3
utils	4.0.5
vctrs	0.6.2
viridisLite	0.4.2
withr	2.5.0

R 3.6 Libraries

This section lists the R 3.6 libraries that ship with ML Runtimes 2023.08.2.

Table 306: PBJ R 3.6.3 Libraries for Workbench

Library	Version
anyio	3.7.0
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
asttokens	2.2.1
attrs	21.4.0
backcall	0.2.0
beautifulsoup4	4.12.2
bleach	4.1.0
certifi	2023.7.22
cffi	1.15.0
charset-normalizer	2.0.11
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
exceptiongroup	1.1.1

Library	Version
executing	1.2.0
fastjsonschema	2.17.1
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.12.0
ipykernel	6.9.0
ipython	8.10.0
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.12.0
jupyter-kernel-gateway	2.5.2
jupyter-server	1.24.0
jupyterlab-pygments	0.1.2
MarkupSafe	2.0.1
matplotlib-inline	0.1.3
mistune	2.0.5
nbclassic	1.0.0
nbclient	0.5.10
nbconvert	7.4.0
nbformat	5.9.0
nest-asyncio	1.5.4
notebook	6.5.4
notebook-shim	0.2.3
packaging	23.1
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
prometheus-client	0.13.1
prompt-toolkit	3.0.38
ptyprocess	0.7.0
pure-eval	0.2.2
pycparser	2.21
Pygments	2.15.1
pyrsistent	0.18.1
python-dateutil	2.8.2

Library	Version
pyzmq	22.3.0
requests	2.31.0
Send2Trash	1.8.0
six	1.16.0
sniffio	1.3.0
soupsieve	2.4.1
stack-data	0.6.2
terminado	0.13.1
tinycss2	1.2.1
tornado	6.3.2
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.5.2
zipp	3.15.0

Table 307: R 3.6.3 Libraries for Workbench

Library	Version
askpass	1.1
base	3.6.3
bitops	1.0-7
boot	1.3-24
brew	1.0-8
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-15
cli	3.6.1
cluster	2.1.0
codetools	0.2-16
colorspace	2.1-0
compiler	3.6.3
curl	5.0.0
datasets	3.6.3
fansi	1.0.4
farver	2.1.1
foreign	0.8-75

Library	Version
ggplot2	3.4.2
glue	1.6.2
graphics	3.6.3
grDevices	3.6.3
grid	3.6.3
gtable	0.3.3
httr	1.4.6
isoband	0.2.7
jsonlite	1.8.4
KernSmooth	2.23-16
labeling	0.4.2
lattice	0.20-38
lifecycle	1.0.3
magrittr	2.0.3
MASS	7.3-51.5
Matrix	1.2-18
methods	3.6.3
mgcv	1.8-31
mime	0.12
munsell	0.5.0
nlme	3.1-144
nnet	7.3-12
openssl	2.0.6
parallel	3.6.3
pillar	1.9.0
pkgconfig	2.0.3
png	0.1-8
R6	2.5.1
RColorBrewer	1.1-3
RJSONIO	1.3-1.8
rlang	1.1.1
Rook	1.2
rpart	4.1-15
Rserve	1.7-0
scales	1.2.1
spatial	7.3-11
splines	3.6.3
stats	3.6.3
stats4	3.6.3

Library	Version
survival	3.1-8
sys	3.4.1
tcltk	3.6.3
tibble	3.2.1
tools	3.6.3
utf8	1.2.3
utils	3.6.3
vctrs	0.6.2
viridisLite	0.4.2
withr	2.5.0

ML Runtimes 2022.11

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2022.11.

Note: Nvidia GPU Edition comes with CUDA 11.4.1 preinstalled.

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2022.11.

Table 308: Packages in Python 3.9.11 Workbench Runtimes - Standard

Library	Version
python	3.9.6
pip	21.1.3
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0

Library	Version
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.16.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 309: Packages in Python 3.9.11 Workbench Runtimes - Nvidia GPU Edition

Library	Version
python	3.9.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.16.0
thrift	0.11.0
thrift-sasl	0.4.3

Library	Version
tornado	6.1
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 310: Packages in Python 3.9.11 PBJ Workbench Runtimes - Standard

Library	Version
python	3.9.6
pip	21.1.3
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2

Library	Version
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1

Library	Version
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2022.11.

Table 311: Packages in Python 3.8.13 Workbench Runtimes - Standard

Library	Version
python	3.8.6
pip	21.1.3
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5

Library	Version
Pillow	9.2.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.16.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 312: Packages in Python 3.8.13 Workbench Runtimes - Nvidia GPU Edition

Library	Version
python	3.8.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0

Library	Version
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.16.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 313: Packages in Python 3.8.13 PBJ Workbench Runtimes - Standard

Library	Version
python	3.8.6
pip	21.1.3
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0

Library	Version
attrs	21.4.0
backcall	0.2.0
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3

Library	Version
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2022.11.

Table 314: Packages in Python 3.7.13 Workbench Runtimes - Standard

Library	Version
python	3.7.13
pip	21.1.3

Library	Version
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.16.0
thrift	0.11.0
thrift-sasl	0.4.3

Library	Version
tornado	6.1
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 315: Packages in Python 3.7.13 Workbench Runtimes - Nvidia GPU Edition

Library	Version
python	3.7.13
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.6.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.4.4
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.21.6
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5

Library	Version
Pillow	9.2.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	3.0.9
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.16.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 316: Packages in Python 3.7.13 PBJ Workbench - Standard

Library	Version
python	3.7.13
pip	21.1.3
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3

Library	Version
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7

Library	Version
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2022.11.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-reflect	2.11.12
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.9.6 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2022.11.

Table 317: Packages in Python 3.9.11 JupyterLab Runtimes - Standard

Library	Version
python	3.9.6
pip	21.1.3

Library	Version
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1

Library	Version
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.21.6
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1

Library	Version
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Table 318: Packages in Python 3.9.11 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
python	3.9.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0

Library	Version
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.21.6
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2

Library	Version
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2022.11.

Table 319: Packages in Python 3.8.13 JupyterLab Runtimes - Standard

Library	Version
python	3.8.13
pip	21.1.3
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
certifi	2020.11.8

Library	Version
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.21.6
packaging	20.9

Library	Version
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Table 320: Packages in Python 3.8.13 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
python	3.8.13
pip	21.1.3

Library	Version
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1

Library	Version
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.21.6
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1

Library	Version
tornado	6.1
traitlets	5.1.1
typing-extensions	4.3.0
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2022.11.

Table 321: Packages in Python 3.7.13 JupyterLab Runtimes - Standard

Library	Version
python	3.7.13
pip	21.1.3
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3

Library	Version
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.21.6
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20

Library	Version
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Table 322: Packages in Python 3.7.13 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
python	3.7.13
pip	21.1.3
cuda	11.4.1-1
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.6.0
bleach	3.3.1

Library	Version
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.11.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.4.4
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.21.6

Library	Version
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.2.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

R 4.1 Libraries

This section lists the R 4.1 libraries that ship with ML Runtimes 2022.11.

Table 323: PBJ R 4.1.1 Libraries for Workbench

Library	Version
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3

Library	Version
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

Table 324: R 4.1.1 Libraries for Workbench

Library	Version
askpass	1.1
base	4.1.1

Library	Version
bitops	1.0-7
boot	1.3-28
brew	1.0-6
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-19
cli	3.0.1
cluster	2.1.2
codetools	0.2-18
colorspace	2.0-2
compiler	4.1.1
crayon	1.4.1
curl	4.3.2
datasets	4.1.1
digest	0.6.27
ellipsis	0.3.2
fansi	0.5.0
farver	2.1.0
foreign	0.8-81
ggplot2	3.3.5
glue	1.4.2
graphics	4.1.1
grDevices	4.1.1
grid	4.1.1
gtable	0.3.0
httr	1.4.2
isoband	0.2.5
jsonlite	1.7.2
KernSmooth	2.23-20
labeling	0.4.2
lattice	0.20-44
lifecycle	1.0.0
magrittr	2.0.1
MASS	7.3-54
Matrix	1.3-4
methods	4.1.1
mgcv	1.8-36
mime	0.11

Library	Version
munsell	0.5.0
nlme	3.1-152
nnet	7.3-16
openssl	1.4.4
parallel	4.1.1
pillar	1.6.2
pkgconfig	2.0.3
png	0.1-7
R6	2.5.1
RColorBrewer	1.1-2
RJSONIO	1.3-1.5
rlang	0.4.11
Rook	1.1-1
rpart	4.1-15
Rserve	1.7-0
scales	1.1.1
spatial	7.3-14
splines	4.1.1
stats	4.1.1
stats4	4.1.1
survival	3.2-11
sys	3.4
tcltk	4.1.1
tibble	3.1.4
tools	4.1.1
utf8	1.2.2
utils	4.1.1
vctrs	0.3.8
viridisLite	0.4.0
withr	2.4.2

R 4.0 Libraries

This section lists the R 4.0 libraries that ship with ML Runtimes 2022.11.

Table 325: PBJ R 4.0.5 Libraries for Workbench

Library	Version
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0

Library	Version
attrs	21.4.0
backcall	0.2.0
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3

Library	Version
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

Table 326: R 4.0.5 Libraries for Workbench

Library	Version
askpass	1.1
base	4.0.5
bitops	1.0-7
boot	1.3-27
brew	1.0-6
Cairo	1.2-0

Library	Version
caTools	1.18.2
cdsw	2.1
class	7.3-18
cli	3.0.1
cluster	2.1.1
codetools	0.2-18
colorspace	2.0-2
compiler	4.0.5
crayon	1.4.1
curl	4.3.2
datasets	4.0.5
digest	0.6.27
ellipsis	0.3.2
fansi	0.5.0
farver	2.1.0
foreign	0.8-81
ggplot2	3.3.5
glue	1.4.2
graphics	4.0.5
grDevices	4.0.5
grid	4.0.5
gtable	0.3.0
httr	1.4.2
isoband	0.2.5
jsonlite	1.7.2
KernSmooth	2.23-18
labeling	0.4.2
lattice	0.20-41
lifecycle	1.0.0
magrittr	2.0.1
MASS	7.3-53.1
Matrix	1.3-2
methods	4.0.5
mgcv	1.8-34
mime	0.11
munsell	0.5.0
nlme	3.1-152
nnet	7.3-15
openssl	1.4.4

Library	Version
parallel	4.0.5
pillar	1.6.2
pkgconfig	2.0.3
png	0.1-7
R6	2.5.1
RColorBrewer	1.1-2
RJSONIO	1.3-1.5
rlang	0.4.11
Rook	1.1-1
rpart	4.1-15
Rserve	1.7-0
scales	1.1.1
spatial	7.3-13
splines	4.0.5
stats	4.0.5
stats4	4.0.5
survival	3.2-10
sys	3.4
tcltk	4.0.5
tibble	3.1.4
tools	4.0.5
utf8	1.2.2
utils	4.0.5
vctrs	0.3.8
viridisLite	0.4.0
withr	2.4.2

R 3.6 Libraries

This section lists the R 3.6 libraries that ship with ML Runtimes 2022.11.

Table 327: PBJ R 3.6.3 Libraries for Workbench

Library	Version
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
bitarray	2.3.6
bleach	4.1.0

Library	Version
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5

Library	Version
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

Table 328: R 3.6.3 Libraries for Workbench

Library	Version
askpass	1.1
base	3.6.3
bitops	1.0-7
boot	1.3-24
brew	1.0-6
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-15
cli	3.0.1

Library	Version
cluster	2.1.0
codetools	0.2-16
colorspace	2.0-2
compiler	3.6.3
crayon	1.4.1
curl	4.3.2
datasets	3.6.3
digest	0.6.27
ellipsis	0.3.2
fansi	0.5.0
farver	2.1.0
foreign	0.8-75
ggplot2	3.3.5
glue	1.4.2
graphics	3.6.3
grDevices	3.6.3
grid	3.6.3
gtable	0.3.0
httr	1.4.2
isoband	0.2.5
jsonlite	1.7.2
KernSmooth	2.23-16
labeling	0.4.2
lattice	0.20-38
lifecycle	1.0.0
magrittr	2.0.1
MASS	7.3-51.5
Matrix	1.2-18
methods	3.6.3
mgcv	1.8-31
mime	0.11
munsell	0.5.0
nlme	3.1-144
nnet	7.3-12
openssl	1.4.4
parallel	3.6.3
pillar	1.6.2
pkgconfig	2.0.3
png	0.1-7

Library	Version
R6	2.5.1
RColorBrewer	1.1-2
RJSONIO	1.3-1.5
rlang	0.4.11
Rook	1.1-1
rpart	4.1-15
Rserve	1.7-0
scales	1.1.1
spatial	7.3-11
splines	3.6.3
stats	3.6.3
stats4	3.6.3
survival	3.1-8
sys	3.4
tcltk	3.6.3
tibble	3.1.4
tools	3.6.3
utf8	1.2.2
utils	3.6.3
vctrs	0.3.8
viridisLite	0.4.0
withr	2.4.2

Python 3.9 Libraries for PBJ Workbench

This section lists the packages in Python 3.9 PBJ Workbench Runtimes that ship with ML Runtimes 2022.11.

Table 329: Packages in Python 3.9.11 PBJ Workbench Runtimes - Standard

Library	Version
python	3.9.6
pip	21.1.3
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0

Library	Version
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1

Library	Version
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

Python 3.8 Libraries for PBJ Workbench

This section lists the packages in Python 3.8 PBJ Workbench Runtimes that ship with ML Runtimes 2022.11.

Table 330: Packages in Python 3.8.13 PBJ Workbench Runtimes - Standard

Library	Version
python	3.8.6
pip	21.1.3
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0
bitarray	2.3.6
bleach	4.1.0

Library	Version
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3
pexpect	4.8.0
pickleshare	0.7.5

Library	Version
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

Python 3.7 Libraries for PBJ Workbench

This section lists the packages in Python 3.7 PBJ Workbench Runtimes that ship with ML Runtimes 2022.11.

Table 331: Packages in Python 3.7.13 PBJ Workbench Runtimes - Standard

Library	Version
python	3.7.13
pip	21.1.3
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0

Library	Version
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3

Library	Version
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

PBJ R 4.1 Libraries

This section lists the PBJ R 4.1 libraries that ship with ML Runtimes 2022.11.

Table 332: PBJ R 4.1.1 Libraries for Workbench

Library	Version
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0

Library	Version
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3

Library	Version
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

PBJ R 4.0 Libraries

This section lists the PBJ R 4.0 libraries that ship with ML Runtimes 2022.11.

Table 333: PBJ R 4.0.5 Libraries for Workbench

Library	Version
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0

Library	Version
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3

Library	Version
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

PBJ R 3.6 Libraries

This section lists the PBJ R 3.6 libraries that ship with ML Runtimes 2022.11.

Table 334: PBJ R 3.6.3 Libraries for Workbench

Library	Version
argon2-cffi	21.3.0
argon2-cffi-bindings	21.2.0
attrs	21.4.0
backcall	0.2.0

Library	Version
bitarray	2.3.6
bleach	4.1.0
certifi	2021.10.8
cffi	1.15.0
charset-normalizer	2.0.11
cycler	0.11.0
debugpy	1.5.1
decorator	5.1.1
defusedxml	0.7.1
entrypoints	0.4
idna	3.3
importlib-metadata	4.11.0
importlib-resources	5.4.0
impyla	0.17.0
ipykernel	6.9.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.18.1
Jinja2	3.0.3
jsonschema	4.4.0
jupyter-client	7.1.2
jupyter-core	4.9.1
jupyter-kernel-gateway	2.5.1
jupyterlab-pygments	0.1.2
kerberos	1.3.1
kiwisolver	1.3.2
MarkupSafe	2.0.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclient	0.5.10
nbconvert	6.4.2
nbformat	5.1.3
nest-asyncio	1.5.4
notebook	6.4.8
numpy	1.21.5
packaging	21.3
pandocfilters	1.5.0
parso	0.8.3

Library	Version
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.13.1
prompt-toolkit	3.0.27
ptyprocess	0.7.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.21
Pygments	2.11.2
pyparsing	3.0.7
pyrsistent	0.18.1
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.27.1
Send2Trash	1.8.0
six	1.16.0
terminado	0.13.1
testpath	0.5.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.0.1
urllib3	1.26.8
wcwidth	0.2.5
webencodings	0.5.1
zipp	3.7.0

ML Runtimes 2022.04

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2022.04.

Note: Nvidia GPU Edition comes with CUDA 11.4.1 preinstalled.

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2022.04.

Table 335: Packages in Python 3.9.11 Workbench Runtimes - Standard

Library	Version
python	3.9.6
pip	21.1.3
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.2
pyzmq	22.3.0

Library	Version
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 336: Packages in Python 3.9.11 Workbench Runtimes - Nvidia GPU Edition

Library	Version
python	3.9.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5

Library	Version
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2022.04.

Table 337: Packages in Python 3.8.13 Workbench Runtimes - Standard

Library	Version
python	3.8.6
pip	21.1.3
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0

Library	Version
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 338: Packages in Python 3.8.13 Workbench Runtimes - Nvidia GPU Edition

Library	Version
python	3.8.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.2

Library	Version
pyzmq	22.3.0
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2022.04.

Table 339: Packages in Python 3.7.13 Workbench Runtimes - Standard

Library	Version
python	3.7.11
pip	21.1.3
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.3.1

Library	Version
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 340: Packages in Python 3.7.13 Workbench Runtimes - Nvidia GPU Edition

Library	Version
python	3.7.11
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
argcomplete	2.0.0
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0

Library	Version
debugpy	1.6.0
decorator	4.4.2
entrypoints	0.4
idna	3.2
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
jedi	0.17.2
jupyter-client	7.2.2
jupyter-core	4.9.2
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
nest-asyncio	1.5.5
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.2
pyzmq	22.3.0
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
zipp	3.8.0

Table 341: Packages in Python 3.7.13 PBJ Workbench - Standard

Library	Version
python	3.7.11
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8

Library	Version
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2

Library	Version
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2022.04.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-reflect	2.11.12
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.9.6 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2022.04.

Table 342: Packages in Python 3.9.11 JupyterLab Runtimes - Standard

Library	Version
python	3.9.6
pip	21.1.3
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1

Library	Version
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0

Library	Version
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Table 343: Packages in Python 3.9.11 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
python	3.9.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8

Library	Version
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2

Library	Version
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2022.04.

Table 344: Packages in Python 3.8.13 JupyterLab Runtimes - Standard

Library	Version
python	3.8.6
pip	21.1.3
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4

Library	Version
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Table 345: Packages in Python 3.8.13 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
python	3.8.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1

Library	Version
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0

Library	Version
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2022.04.

Table 346: Packages in Python 3.7.13 JupyterLab Runtimes - Standard

Library	Version
python	3.7.11
pip	21.1.3
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2

Library	Version
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0

Library	Version
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

Table 347: Packages in Python 3.7.13 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
python	3.7.11
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
anyio	3.3.0
argcomplete	2.0.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
beautifulsoup4	4.11.1
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
debugpy	1.6.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.4

Library	Version
fastjsonschema	2.15.3
idna	2.10
importlib-metadata	4.11.3
impyla	0.17.0
ipykernel	6.5.0
ipython	7.31.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	3.1.1
json5	0.9.5
jsonschema	3.2.0
jupyter-client	7.2.2
jupyter-core	4.9.2
jupyter-server	1.16.0
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	2.1.1
matplotlib	3.3.4
matplotlib-inline	0.1.3
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.5.0
nbformat	5.3.0
nest-asyncio	1.5.5
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	9.0.1
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0

Library	Version
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.2
pytz	2021.1
pyzmq	22.3.0
requests	2.25.1
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
soupsieve	2.3.2
terminado	0.9.2
thrift	0.11.0
thrift-sasl	0.4.3
tinycss2	1.1.1
tornado	6.1
traitlets	5.1.1
typing-extensions	4.1.1
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.8.0

R 4.0 Libraries

This section lists the R 4.0 libraries that ship with ML Runtimes 2022.04.

Table 348: R 4.0.5 Libraries for Workbench

Library	Version
askpass	1.1
base	4.0.5
bitops	1.0-7
boot	1.3-27
brew	1.0-6
Cairo	1.2-0

Library	Version
caTools	1.18.2
cdsw	2.1
class	7.3-18
cli	3.0.1
cluster	2.1.1
codetools	0.2-18
colorspace	2.0-2
compiler	4.0.5
crayon	1.4.1
curl	4.3.2
datasets	4.0.5
digest	0.6.27
ellipsis	0.3.2
fansi	0.5.0
farver	2.1.0
foreign	0.8-81
ggplot2	3.3.5
glue	1.4.2
graphics	4.0.5
grDevices	4.0.5
grid	4.0.5
gtable	0.3.0
httr	1.4.2
isoband	0.2.5
jsonlite	1.7.2
KernSmooth	2.23-18
labeling	0.4.2
lattice	0.20-41
lifecycle	1.0.0
magrittr	2.0.1
MASS	7.3-53.1
Matrix	1.3-2
methods	4.0.5
mgcv	1.8-34
mime	0.11
munsell	0.5.0
nlme	3.1-152
nnet	7.3-15
openssl	1.4.4

Library	Version
parallel	4.0.5
pillar	1.6.2
pkgconfig	2.0.3
png	0.1-7
R6	2.5.1
RColorBrewer	1.1-2
RJSONIO	1.3-1.5
rlang	0.4.11
Rook	1.1-1
rpart	4.1-15
Rserve	1.7-0
scales	1.1.1
spatial	7.3-13
splines	4.0.5
stats	4.0.5
stats4	4.0.5
survival	3.2-10
sys	3.4
tcltk	4.0.5
tibble	3.1.4
tools	4.0.5
utf8	1.2.2
utils	4.0.5
vctrs	0.3.8
viridisLite	0.4.0
withr	2.4.2

R 4.1 Libraries

This section lists the R 4.1 libraries that ship with ML Runtimes 2022.04.

Table 349: R 4.1.1 Libraries for Workbench

Library	Version
askpass	1.1
base	4.1.1
bitops	1.0-7
boot	1.3-28
brew	1.0-6
Cairo	1.2-0

Library	Version
caTools	1.18.2
cdsw	2.1
class	7.3-19
cli	3.0.1
cluster	2.1.2
codetools	0.2-18
colorspace	2.0-2
compiler	4.1.1
crayon	1.4.1
curl	4.3.2
datasets	4.1.1
digest	0.6.27
ellipsis	0.3.2
fansi	0.5.0
farver	2.1.0
foreign	0.8-81
ggplot2	3.3.5
glue	1.4.2
graphics	4.1.1
grDevices	4.1.1
grid	4.1.1
gtable	0.3.0
httr	1.4.2
isoband	0.2.5
jsonlite	1.7.2
KernSmooth	2.23-20
labeling	0.4.2
lattice	0.20-44
lifecycle	1.0.0
magrittr	2.0.1
MASS	7.3-54
Matrix	1.3-4
methods	4.1.1
mgcv	1.8-36
mime	0.11
munsell	0.5.0
nlme	3.1-152
nnet	7.3-16
openssl	1.4.4

Library	Version
parallel	4.1.1
pillar	1.6.2
pkgconfig	2.0.3
png	0.1-7
R6	2.5.1
RColorBrewer	1.1-2
RJSONIO	1.3-1.5
rlang	0.4.11
Rook	1.1-1
rpart	4.1-15
Rserve	1.7-0
scales	1.1.1
spatial	7.3-14
splines	4.1.1
stats	4.1.1
stats4	4.1.1
survival	3.2-11
sys	3.4
tcltk	4.1.1
tibble	3.1.4
tools	4.1.1
utf8	1.2.2
utils	4.1.1
vctrs	0.3.8
viridisLite	0.4.0
withr	2.4.2

R 3.6 Libraries

This section lists the R 3.6 libraries that ship with ML Runtimes 2022.04.

Table 350: R 3.6.3 Libraries for Workbench

Library	Version
askpass	1.1
base	3.6.3
bitops	1.0-7
boot	1.3-24
brew	1.0-6
Cairo	1.2-0

Library	Version
caTools	1.18.2
cdsw	2.1
class	7.3-15
cli	3.0.1
cluster	2.1.0
codetools	0.2-16
colorspace	2.0-2
compiler	3.6.3
crayon	1.4.1
curl	4.3.2
datasets	3.6.3
digest	0.6.27
ellipsis	0.3.2
fansi	0.5.0
farver	2.1.0
foreign	0.8-75
ggplot2	3.3.5
glue	1.4.2
graphics	3.6.3
grDevices	3.6.3
grid	3.6.3
gtable	0.3.0
httr	1.4.2
isoband	0.2.5
jsonlite	1.7.2
KernSmooth	2.23-16
labeling	0.4.2
lattice	0.20-38
lifecycle	1.0.0
magrittr	2.0.1
MASS	7.3-51.5
Matrix	1.2-18
methods	3.6.3
mgcv	1.8-31
mime	0.11
munsell	0.5.0
nlme	3.1-144
nnet	7.3-12
openssl	1.4.4

Library	Version
parallel	3.6.3
pillar	1.6.2
pkgconfig	2.0.3
png	0.1-7
R6	2.5.1
RColorBrewer	1.1-2
RJSONIO	1.3-1.5
rlang	0.4.11
Rook	1.1-1
rpart	4.1-15
Rserve	1.7-0
scales	1.1.1
spatial	7.3-11
splines	3.6.3
stats	3.6.3
stats4	3.6.3
survival	3.1-8
sys	3.4
tcltk	3.6.3
tibble	3.1.4
tools	3.6.3
utf8	1.2.2
utils	3.6.3
vctrs	0.3.8
viridisLite	0.4.0
withr	2.4.2

ML Runtimes 2021.12

This section lists the Python, R, and Scala libraries that ship with ML Runtimes 2021.12.

Note: Nvidia GPU Edition comes with CUDA 11.4.1 preinstalled.

Python 3.9 Libraries for Workbench

This section lists the packages in Python 3.9 Workbench Runtimes that ship with ML Runtimes 2021.12.

Table 351: Packages in Python 3.9.7 Workbench Runtimes - Standard

Library	Version
python	3.9.6
pip	21.1.3
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
idna	3.2
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
jupyter-client	6.1.7
jupyter-core	4.6.3
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.1
pyzmq	19.0.2
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1

Library	Version
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5

Table 352: Packages in Python 3.9.7 Workbench Runtimes - Nvidia GPU Edition

Library	Version
python	3.9.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
idna	3.2
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
jupyter-client	6.1.7
jupyter-core	4.6.3
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.1

Library	Version
pyzmq	19.0.2
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5

Python 3.8 Libraries for Workbench

This section lists the packages in Python 3.8 Workbench Runtimes that ship with ML Runtimes 2021.12.

Table 353: Packages in Python 3.8.6 Workbench Runtimes - Standard

Library	Version
python	3.8.6
pip	21.1.3
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
idna	3.2
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
jupyter-client	6.1.7
jupyter-core	4.6.3
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5

Library	Version
Pillow	8.4.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.1
pyzmq	19.0.2
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5

Table 354: Packages in Python 3.8.6 Workbench Runtimes - Nvidia GPU Edition

Library	Version
python	3.8.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
idna	3.2
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
jupyter-client	6.1.7
jupyter-core	4.6.3
kerberos	1.3.1

Library	Version
kiwisolver	1.3.1
matplotlib	3.3.4
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.1
pyzmq	19.0.2
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5

Table 355: Packages in Python 3.8.6 Workbench Runtimes - RAPIDS

Library	Version
python	3.8.6
pip	21.1.3
_libgcc_mutex	0.1
_openmp_mutex	4.5
abseil-cpp	20210324.2
aiohttp	3.8.1
aiosignal	1.2.0
anyio	3.4.0
appdirs	1.4.4
argon2-cffi	21.1.0
arrow-cpp	5.0.0
arrow-cpp-proc	3.0.0
async-timeout	4.0.1

Library	Version
async_generator	1.10
attrs	21.2.0
aws-c-auth	0.6.7
aws-c-cal	0.5.12
aws-c-common	0.6.17
aws-c-compression	0.2.14
aws-c-event-stream	0.2.7
aws-c-http	0.6.10
aws-c-io	0.10.13
aws-c-mqtt	0.7.9
aws-c-s3	0.1.27
aws-c-sdkutils	0.1.1
aws-checksums	0.1.12
aws-crt-cpp	0.17.8
aws-sdk-cpp	1.9.145
backcall	0.2.0
backports	1.0
backports.functools_lru_cache	1.6.4
bleach	4.1.0
blosc	1.21.0
bokeh	2.4.0
boost	1.74.0
boost-cpp	1.74.0
brotli	1.0.9
brotli-bin	1.0.9
brotlipy	0.7.0
brunsli	0.1
bzip2	1.0.8
c-ares	1.18.1
c-blosc2	2.0.4
ca-certificates	2021.10.8
cachetools	4.2.4
cairo	1.16.0
cdsw	1.1.0
certifi	2021.5.30
cffi	1.15.0
cfitsio	3.470
charls	2.2.0
charset-normalizer	2.0.6

Library	Version
click	8.0.3
click-plugins	1.1.1
cligj	0.7.2
cloudpickle	2.0.0
colorama	0.4.4
colorcet	3.0.0
cryptography	36.0.1
cucim	21.12.00
cudatoolkit	11.0.221
cudf	21.12.02
cudf_kafka	21.12.02
cudnn	8.2.1.32
cugraph	21.12.00
cuml	21.12.00
cupy	9.6.0
curl	7.80.0
cusignal	21.12.00
cuspatial	21.12.00
custreamz	21.12.02
cuxfilter	21.12.00
cycler	0.11.0
cyrus-sasl	2.1.27
cytoolz	0.11.2
dask	2021.11.2
dask-core	2021.11.2
dask-cuda	21.12.00
dask-cudf	21.12.02
datashader	0.11.1
datashape	0.5.4
debugpy	1.5.1
decorator	5.1.0
defusedxml	0.7.1
distributed	2021.11.2
dlpack	0.5
entrypoints	0.3
expat	2.4.1
faiss-proc	1.0.0
fastavro	1.4.7
fastrlock	0.8

Library	Version
fiona	1.8.20
font-ttf-dejavu-sans-mono	2.37
font-ttf-inconsolata	3.000
font-ttf-source-code-pro	2.038
font-ttf-ubuntu	0.83
fontconfig	2.13.1
fonts-conda-ecosystem	1
fonts-conda-forge	1
fonttools	4.28.4
freetype	2.10.4
freexl	1.0.6
frozenlist	1.2.0
fsspec	2021.11.1
gdal	3.3.2
geopandas	0.9.0
geopandas-base	0.9.0
geos	3.9.1
geotiff	1.7.0
gettext	0.19.8.1
gflags	2.2.2
giflib	5.2.1
git	2.34.1
glog	0.5.0
gpuci-tools	0.3.1
grpc-cpp	1.41.1
hdf4	4.2.15
hdf5	1.12.1
heapdict	1.0.1
icu	68.2
idna	3.2
imagecodecs	2021.8.26
imageio	2.13.3
importlib-metadata	4.8.3
importlib_metadata	4.8.3
importlib_resources	5.4.0
ipykernel	6.6.0
ipython	7.30.1
ipython_genutils	0.2.0
ipywidgets	7.6.5

Library	Version
jbig	2.1
jedi	0.18.1
jinja2	3.0.3
joblib	1.1.0
jpeg	9d
json-c	0.15
jsonschema	4.3.1
jupyter-server-proxy	3.2.0
jupyter_client	7.1.0
jupyter_core	4.9.1
jupyter_server	1.13.1
jupyterlab_pygments	0.1.2
jupyterlab_widgets	1.0.2
jxrlib	1.1
kealib	1.4.14
kiwisolver	1.3.2
krb5	1.19.2
lcms2	2.12
ld_impl_linux-64	2.36.1
lerc	3.0
libaec	1.0.6
libblas	3.9.0
libbrotlicommon	1.0.9
libbrotlidec	1.0.9
libbrotlienc	1.0.9
libcblas	3.9.0
libcucim	21.12.00
libcudf	21.12.02
libcudf_kafka	21.12.02
libcugraph	21.12.00
libcuml	21.12.00
libcumlprims	21.12.00
libcurl	7.80.0
libcusolver	11.3.2.107
libcuspatial	21.12.00
libdap4	3.20.6
libdeflate	1.8
libedit	3.1.20191231
libev	4.33

Library	Version
libevent	2.1.10
libfaiss	1.7.0
libffi	3.4.2
libgcc-ng	9.4.0
libgcrypt	1.9.4
libgdal	3.3.2
libgfortran-ng	11.2.0
libgfortran5	11.2.0
libglib	2.70.2
libgpg-error	1.42
libgsasl	1.10.0
libhwloc	2.3.0
libiconv	1.16
libkml	1.3.0
liblapack	3.9.0
libllvm11	11.1.0
libnetcdf	4.8.1
libnghttp2	1.43.0
libnsl	2.0.0
libntlm	1.4
libopenblas	0.3.18
libpng	1.6.37
libpq	13.5
libprotobuf	3.18.1
librdkafka	1.6.1
librmm	21.12.00
librttopo	1.1.0
libsodium	1.0.18
libspatialindex	1.9.3
libspatialite	5.0.1
libssh2	1.10.0
libstdcxx-ng	9.4.0
libthrift	0.15.0
libtiff	4.3.0
libutf8proc	2.7.0
libuuid	2.32.1
libuv	1.42.0
libwebp	1.2.1
libwebp-base	1.2.1

Library	Version
libxcb	1.13
libxgboost	1.5.0dev.rapidsai21.12
libxml2	2.9.12
libzip	1.8.0
libzlib	1.2.11
libzopfli	1.0.3
llvm-openmp	12.0.1
llvmlite	0.37.0
locket	0.2.0
lz4-c	1.9.3
mapclassify	2.4.3
markdown	3.3.6
markupsafe	2.0.1
matplotlib-base	3.5.1
matplotlib-inline	0.1.3
mistune	0.8.4
msgpack-python	1.0.3
multidict	5.2.0
multipledispatch	0.6.0
munch	2.5.0
munkres	1.1.4
nbclient	0.5.9
nbconvert	6.3.0
nbformat	5.1.3
nccl	2.11.4.1
ncurses	6.2
nest-asyncio	1.5.4
networkx	2.6.3
nodejs	14.17.4
notebook	6.4.6
nspr	4.32
nss	3.73
numba	0.54.1
numpy	1.20.3
nvtx	0.2.3
olefile	0.46
openjpeg	2.4.0
openssl	1.1.1l
orc	1.7.1

Library	Version
packaging	21.3
pandas	1.3.5
pandoc	2.16.2
pandocfilters	1.5.0
panel	0.12.4
param	1.12.0
parquet-cpp	1.5.1
parso	0.8.3
partd	1.2.0
pcre	8.45
pcre2	10.37
perl	5.32.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	8.4.0
pip	21.3.1
pixman	0.40.0
pooch	1.5.2
poppler	21.09.0
poppler-data	0.4.11
postgresql	13.5
proj	8.1.0
prometheus_client	0.12.0
prompt-toolkit	3.0.24
protobuf	3.18.1
psutil	5.8.0
pthread-stubs	0.4
ptxcompiler	0.2.0
ptyprocess	0.7.0
py-xgboost	1.5.0dev.rapidsai21.12
py4j	0.10.9
pyarrow	5.0.0
pycparser	2.21
pyct	0.4.6
pyct-core	0.4.6
pydeck	0.5.0
pyee	8.1.0
pygments	2.10.0
pynvml	11.4.1

Library	Version
pyopenssl	21.0.0
pyparsing	3.0.6
pyppeteer	0.2.6
pyproj	3.1.0
pyrsistent	0.18.0
pysocks	1.7.1
python	3.8.12
python-confluent-kafka	1.6.0
python-dateutil	2.8.2
python_abi	3.8
pytz	2021.3
pyviz_comms	2.1.0
pywavelets	1.2.0
pyyaml	6.0
pyzmq	22.3.0
rapids	21.12.00
rapids-xgboost	21.12.00
re2	2021.11.01
readline	8.1
requests	2.26.0
rmm	21.12.00
rtree	0.9.7
s2n	1.3.0
scikit-image	0.18.1
scikit-learn	1.0.1
scipy	1.7.3
send2trash	1.8.0
setuptools	59.6.0
shapely	1.8.0
simpervisor	0.4
six	1.16.0
snappy	1.1.8
sniffio	1.2.0
sortedcontainers	2.4.0
spdlog	1.8.5
sqlite	3.37.0
streamz	0.6.3
tblib	1.7.0
terminado	0.12.1

Library	Version
testpath	0.5.0
threadpoolctl	3.0.0
tifffile	2021.11.2
tiledb	2.3.4
tk	8.6.11
toolz	0.11.2
tornado	6.1
tqdm	4.62.3
traitlets	5.1.1
treelite	2.1.0
treelite-runtime	2.1.0
typing-extensions	4.0.1
typing_extensions	4.0.1
tzcode	2021e
tzdata	2021e
ucx	1.11.2+gef2bbcf
ucx-proc	1.0.0
ucx-py	0.23.0
unicodedata2	13.0.0.post2
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.3
websockets	9.1
wheel	0.37.0
widgetsnbextension	3.5.2
xarray	0.20.2
xerces-c	3.2.3
xgboost	1.5.0dev.rapidsai21.12
xorg-kbproto	1.0.7
xorg-libice	1.0.10
xorg-libsm	1.2.3
xorg-libx11	1.7.2
xorg-libxau	1.0.9
xorg-libxdmcp	1.1.3
xorg-libxext	1.3.4
xorg-libxrender	0.9.10
xorg-renderproto	0.11.1
xorg-xextproto	7.3.0

Library	Version
xorg-xproto	7.0.31
xz	5.2.5
yaml	0.2.5
yarl	1.7.2
zeromq	4.3.4
zfp	0.5.5
zict	2.0.0
zipp	3.6.0
zlib	1.2.11
zstd	1.5.0

Python 3.7 Libraries for Workbench

This section lists the packages in Python 3.7 Workbench Runtimes that ship with ML Runtimes 2021.12.

Table 356: Packages in Python 3.7.11 Workbench Runtimes - Standard

Library	Version
python	3.7.11
pip	21.1.3
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
idna	3.2
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
jupyter-client	6.1.7
jupyter-core	4.6.3
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0

Library	Version
pickleshare	0.7.5
Pillow	8.4.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.1
pyzmq	19.0.2
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5

Table 357: Packages in Python 3.7.11 Workbench Runtimes - Nvidia GPU Edition

Library	Version
python	3.7.11
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
backcall	0.2.0
bitarray	2.1.0
certifi	2021.5.30
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
idna	3.2
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
jupyter-client	6.1.7
jupyter-core	4.6.3

Library	Version
kerberos	1.3.1
kiwisolver	1.3.1
matplotlib	3.3.4
numpy	1.19.4
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
Pygments	2.8.1
pyparsing	2.4.7
python-dateutil	2.8.1
pyzmq	19.0.2
requests	2.26.0
six	1.15.0
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5

Table 358: Packages in Python 3.7.11 Workbench Runtimes - RAPIDS

Library	Version
python	3.7.11
pip	21.1.3
cuda	11.4.1-1
_libgcc_mutex	0.1
_openmp_mutex	4.5
abseil-cpp	20210324.2
aiohttp	3.8.1
aiosignal	1.2.0
anyio	3.4.0
appdirs	1.4.4
argcomplete	1.12.3
argon2-cffi	21.1.0

Library	Version
arrow-cpp	5.0.0
arrow-cpp-proc	3.0.0
async-timeout	4.0.1
async_generator	1.10
asynctest	0.13.0
attrs	21.2.0
aws-c-auth	0.6.7
aws-c-cal	0.5.12
aws-c-common	0.6.17
aws-c-compression	0.2.14
aws-c-event-stream	0.2.7
aws-c-http	0.6.10
aws-c-io	0.10.13
aws-c-mqtt	0.7.9
aws-c-s3	0.1.27
aws-c-sdkutils	0.1.1
aws-checksums	0.1.12
aws-crt-cpp	0.17.8
aws-sdk-cpp	1.9.145
backcall	0.2.0
backports	1.0
backports.functools_lru_cache	1.6.4
bleach	4.1.0
blosc	1.21.0
bokeh	2.4.0
boost	1.74.0
boost-cpp	1.74.0
brotli	1.0.9
brotli-bin	1.0.9
brotlipy	0.7.0
brunsli	0.1
bzip2	1.0.8
c-ares	1.18.1
c-blosc2	2.0.4
ca-certificates	2021.10.8
cachetools	4.2.4
cairo	1.16.0
cdsw	1.1.0
certifi	2021.5.30

Library	Version
cffi	1.15.0
cfitsio	3.470
charls	2.2.0
charset-normalizer	2.0.6
click	8.0.3
click-plugins	1.1.1
cligj	0.7.2
cloudpickle	2.0.0
colorama	0.4.4
colorcet	3.0.0
cryptography	36.0.1
cucim	21.12.00
cudatoolkit	11.0.221
cudf	21.12.02
cudf_kafka	21.12.02
cudnn	8.2.1.32
cugraph	21.12.00
cuml	21.12.00
cupy	9.6.0
curl	7.80.0
cusignal	21.12.00
cuspatial	21.12.00
custreamz	21.12.02
cuxfilter	21.12.00
cycler	0.11.0
cyrus-sasl	2.1.27
cytoolz	0.11.2
dask	2021.11.2
dask-core	2021.11.2
dask-cuda	21.12.00
dask-cudf	21.12.02
datashader	0.11.1
datashape	0.5.4
debugpy	1.5.1
decorator	5.1.0
defusedxml	0.7.1
distributed	2021.11.2
dlpack	0.5
entrypoints	0.3

Library	Version
expat	2.4.1
faiss-proc	1.0.0
fastavro	1.4.7
fastrlock	0.8
fiona	1.8.20
font-ttf-dejavu-sans-mono	2.37
font-ttf-inconsolata	3.000
font-ttf-source-code-pro	2.038
font-ttf-ubuntu	0.83
fontconfig	2.13.1
fonts-conda-ecosystem	1
fonts-conda-forge	1
fonttools	4.28.4
freetype	2.10.4
freexl	1.0.6
frozenlist	1.2.0
fsspec	2021.11.1
gdal	3.3.2
geopandas	0.9.0
geopandas-base	0.9.0
geos	3.9.1
geotiff	1.7.0
gettext	0.19.8.1
gflags	2.2.2
giflib	5.2.1
git	2.34.1
glog	0.5.0
gpuci-tools	0.3.1
grpc-cpp	1.41.1
hdf4	4.2.15
hdf5	1.12.1
heapdict	1.0.1
icu	68.2
idna	3.2
imagecodecs	2021.8.26
imageio	2.13.3
importlib-metadata	4.8.3
importlib_metadata	4.8.3
importlib_resources	5.4.0

Library	Version
ipykernel	6.6.0
ipython	7.30.1
ipython_genutils	0.2.0
ipywidgets	7.6.5
jbig	2.1
jedi	0.18.1
jinja2	3.0.3
joblib	1.1.0
jpeg	9d
json-c	0.15
jsonschema	4.3.1
jupyter-server-proxy	3.2.0
jupyter_client	7.1.0
jupyter_core	4.9.1
jupyter_server	1.13.1
jupyterlab_pygments	0.1.2
jupyterlab_widgets	1.0.2
jxrlib	1.1
kealib	1.4.14
kiwisolver	1.3.2
krb5	1.19.2
lcms2	2.12
ld_impl_linux-64	2.36.1
lerc	3.0
libaec	1.0.6
libblas	3.9.0
libbrotlicommon	1.0.9
libbrotlidec	1.0.9
libbrotlienc	1.0.9
libcblas	3.9.0
libcucim	21.12.00
libcudf	21.12.02
libcudf_kafka	21.12.02
libcugraph	21.12.00
libcuml	21.12.00
libcumlprims	21.12.00
libcurl	7.80.0
libcusolver	11.3.2.107
libcuspatial	21.12.00

Library	Version
libdap4	3.20.6
libdeflate	1.8
libedit	3.1.20191231
libev	4.33
libevent	2.1.10
libfaiss	1.7.0
libffi	3.4.2
libgcc-ng	9.4.0
libgcrypt	1.9.4
libgdal	3.3.2
libgfortran-ng	11.2.0
libgfortran5	11.2.0
libglib	2.70.2
libgpg-error	1.42
libgsasl	1.10.0
libhwloc	2.3.0
libiconv	1.16
libkml	1.3.0
liblapack	3.9.0
libllvm11	11.1.0
libnetcdf	4.8.1
libnghttp2	1.43.0
libnsl	2.0.0
libntlm	1.4
libopenblas	0.3.18
libpng	1.6.37
libpq	13.5
libprotobuf	3.18.1
librdkafka	1.6.1
librmm	21.12.00
librttopo	1.1.0
libsodium	1.0.18
libspatialindex	1.9.3
libspatialite	5.0.1
libssh2	1.10.0
libstdcxx-ng	9.4.0
libthrift	0.15.0
libtiff	4.3.0
libutf8proc	2.7.0

Library	Version
libuuid	2.32.1
libuv	1.42.0
libwebp	1.2.1
libwebp-base	1.2.1
libxcb	1.13
libxgboost	1.5.0dev.rapidsai21.12
libxml2	2.9.12
libzip	1.8.0
libzlib	1.2.11
libzopfli	1.0.3
llvm-openmp	12.0.1
llvmlite	0.37.0
locket	0.2.0
lz4-c	1.9.3
mapclassify	2.4.3
markdown	3.3.6
markupsafe	2.0.1
matplotlib-base	3.5.1
matplotlib-inline	0.1.3
mistune	0.8.4
msgpack-python	1.0.3
multidict	5.2.0
multipledispatch	0.6.0
munch	2.5.0
munkres	1.1.4
nbclient	0.5.9
nbconvert	6.3.0
nbformat	5.1.3
nccl	2.11.4.1
ncurses	6.2
nest-asyncio	1.5.4
networkx	2.6.3
nodejs	14.17.4
notebook	6.4.6
nspr	4.32
nss	3.73
numba	0.54.1
numpy	1.20.3
nvtx	0.2.3

Library	Version
olefile	0.46
openjpeg	2.4.0
openssl	1.1.1l
orc	1.7.1
packaging	21.3
pandas	1.3.5
pandoc	2.16.2
pandocfilters	1.5.0
panel	0.12.4
param	1.12.0
parquet-cpp	1.5.1
parso	0.8.3
partd	1.2.0
pcre	8.45
pcre2	10.37
perl	5.32.1
pexpect	4.8.0
pickle5	0.0.12
pickleshare	0.7.5
pillow	8.4.0
pip	21.3.1
pixman	0.40.0
pooch	1.5.2
poppler	21.09.0
poppler-data	0.4.11
postgresql	13.5
proj	8.1.0
prometheus_client	0.12.0
prompt-toolkit	3.0.24
protobuf	3.18.1
psutil	5.8.0
pthread-stubs	0.4
ptxcompiler	0.2.0
ptyprocess	0.7.0
py-xgboost	1.5.0dev.rapidsai21.12
py4j	0.10.9
pyarrow	5.0.0
pycparser	2.21
pyct	0.4.6

Library	Version
pyct-core	0.4.6
pydeck	0.5.0
pyee	8.1.0
pygments	2.10.0
pynvml	11.4.1
pyopenssl	21.0.0
pyparsing	3.0.6
pyppeteer	0.2.6
pyproj	3.1.0
pyrsistent	0.18.0
pysocks	1.7.1
python	3.7.12
python-confluent-kafka	1.6.0
python-dateutil	2.8.2
python_abi	3.7
pytz	2021.3
pyviz_comms	2.1.0
pywavelets	1.2.0
pyyaml	6.0
pyzmq	22.3.0
rapids	21.12.00
rapids-xgboost	21.12.00
re2	2021.11.01
readline	8.1
requests	2.26.0
rmm	21.12.00
rtree	0.9.7
s2n	1.3.0
scikit-image	0.18.1
scikit-learn	1.0.1
scipy	1.7.3
send2trash	1.8.0
setuptools	59.6.0
shapely	1.8.0
simpervisor	0.4
six	1.16.0
snappy	1.1.8
sniffio	1.2.0
sortedcontainers	2.4.0

Library	Version
spdlog	1.8.5
sqlite	3.37.0
streamz	0.6.3
tblib	1.7.0
terminado	0.12.1
testpath	0.5.0
threadpoolctl	3.0.0
tifffile	2021.11.2
tiledb	2.3.4
tk	8.6.11
toolz	0.11.2
tornado	6.1
tqdm	4.62.3
traitlets	5.1.1
treelite	2.1.0
treelite-runtime	2.1.0
typing-extensions	4.0.1
typing_extensions	4.0.1
tzcode	2021e
tzdata	2021e
ucx	1.11.2+gef2bbcf
ucx-proc	1.0.0
ucx-py	0.23.0
unicodedata2	13.0.0.post2
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.3
websockets	9.1
wheel	0.37.0
widgetsnbextension	3.5.2
xarray	0.20.2
xerces-c	3.2.3
xgboost	1.5.0dev.rapidsai21.12
xorg-kbproto	1.0.7
xorg-libice	1.0.10
xorg-libsm	1.2.3
xorg-libx11	1.7.2
xorg-libxau	1.0.9

Library	Version
xorg-libxdmcp	1.1.3
xorg-libxext	1.3.4
xorg-libxrender	0.9.10
xorg-renderproto	0.11.1
xorg-xextproto	7.3.0
xorg-xproto	7.0.31
xz	5.2.5
yaml	0.2.5
yarl	1.7.2
zeromq	4.3.4
zfp	0.5.5
zict	2.0.0
zipp	3.6.0
zlib	1.2.11
zstd	1.5.0

Scala 2.11 Libraries for Workbench

This section lists the packages in Scala 2.11.12 Workbench Runtimes that ship with ML Runtimes 2021.12.

Scala 2.11.12 Libraries for Workbench - Standard

Library	Version
org.scala-lang:scala-library	2.11.12
org.scalatest:scalatest	2.2.4
org.scala-lang:scala-compiler	2.11.12
io.circe:circe-generic	0.11.2
io.circe:circe-parser	0.11.2
org.scalameta:scalameta	1.0.0

Python 3.9.6 Libraries for JupyterLab

This section lists the packages in Python 3.9 JupyterLab Runtimes that ship with ML Runtimes 2021.12.

Table 359: Packages in Python 3.9.6 JupyterLab Runtimes - Standard

Library	Version
python	3.9.6
pip	21.1.3
anyio	3.3.0
argon2-cffi	20.1.0
async-generator	1.10

Library	Version
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.3
idna	2.10
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	2.11.3
json5	0.9.5
jsonschema	3.2.0
jupyter-client	6.1.7
jupyter-core	4.6.3
jupyter-server	1.10.2
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	1.1.1
matplotlib	3.3.4
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.0.7
nbformat	5.1.3
nest-asyncio	1.5.1
notebook	6.4.3

Library	Version
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.1
pytz	2021.1
pyzmq	19.0.2
requests	2.25.1
requests-unixsocket	0.2.0
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
terminado	0.9.2
testpath	0.4.4
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1

Table 360: Packages in Python 3.9.6 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
python	3.9.6
pip	21.1.3

Library	Version
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
anyio	3.3.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.3
idna	2.10
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	2.11.3
json5	0.9.5
jsonschema	3.2.0
jupyter-client	6.1.7
jupyter-core	4.6.3
jupyter-server	1.10.2
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	1.1.1
matplotlib	3.3.4
mistune	0.8.4
nbclassic	0.3.1

Library	Version
nbclient	0.5.1
nbconvert	6.0.7
nbformat	5.1.3
nest-asyncio	1.5.1
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.1
pytz	2021.1
pyzmq	19.0.2
requests	2.25.1
requests-unixsocket	0.2.0
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
terminado	0.9.2
testpath	0.4.4
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1

Python 3.8 Libraries for JupyterLab

This section lists the packages in Python 3.8 JupyterLab Runtimes that ship with ML Runtimes 2021.012.

Table 361: Packages in Python 3.8.6 JupyterLab Runtimes - Standard

Library	Version
python	3.8.6
pip	21.1.3
anyio	3.3.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.3
idna	2.10
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	2.11.3
json5	0.9.5
jsonschema	3.2.0
jupyter-client	6.1.7
jupyter-core	4.6.3
jupyter-server	1.10.2
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1

Library	Version
kiwisolver	1.3.1
MarkupSafe	1.1.1
matplotlib	3.3.4
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.0.7
nbformat	5.1.3
nest-asyncio	1.5.1
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.1
pytz	2021.1
pyzmq	19.0.2
requests	2.25.1
requests-unixsocket	0.2.0
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
terminado	0.9.2
testpath	0.4.4
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1

Library	Version
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1

Table 362: Packages in Python 3.8.6 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
python	3.8.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
anyio	3.3.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.3
idna	2.10
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	2.11.3
json5	0.9.5
jsonschema	3.2.0
jupyter-client	6.1.7
jupyter-core	4.6.3

Library	Version
jupyter-server	1.10.2
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	1.1.1
matplotlib	3.3.4
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.0.7
nbformat	5.1.3
nest-asyncio	1.5.1
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.1
pytz	2021.1
pyzmq	19.0.2
requests	2.25.1
requests-unixsocket	0.2.0
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0

Library	Version
terminado	0.9.2
testpath	0.4.4
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1

Table 363: Packages in Python 3.8.6 JupyterLab Runtimes - RAPIDS

Library	Version
python	3.8.6
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
_libgcc_mutex	0.1
_openmp_mutex	4.5
abseil-cpp	20210324.2
aiohttp	3.8.1
aiosignal	1.2.0
anyio	3.3.0
appdirs	1.4.4
argon2-cffi	20.1.0
arrow-cpp	5.0.0
arrow-cpp-proc	3.0.0
async-timeout	4.0.1
async_generator	1.10
attrs	20.3.0
aws-c-auth	0.6.7
aws-c-cal	0.5.12
aws-c-common	0.6.17
aws-c-compression	0.2.14
aws-c-event-stream	0.2.7
aws-c-http	0.6.10
aws-c-io	0.10.13
aws-c-mqtt	0.7.9
aws-c-s3	0.1.27

Library	Version
aws-c-sdkutils	0.1.1
aws-checksums	0.1.12
aws-crt-cpp	0.17.8
aws-sdk-cpp	1.9.145
babel	2.9.1
backcall	0.2.0
backports	1.0
backports.functools_lru_cache	1.6.4
bleach	3.3.1
blosc	1.21.0
bokeh	2.4.0
boost	1.74.0
boost-cpp	1.74.0
brotli	1.0.9
brotli-bin	1.0.9
brotlipy	0.7.0
brunsli	0.1
bzip2	1.0.8
c-ares	1.18.1
c-blosc2	2.0.4
ca-certificates	2021.10.8
cachetools	4.2.4
cairo	1.16.0
cdsw	1.1.0
certifi	2020.11.8
cffi	1.14.4
cfitsio	3.470
chardet	4.0.0
charls	2.2.0
charset-normalizer	2.0.6
click	8.0.3
click-plugins	1.1.1
cligj	0.7.2
cloudpickle	2.0.0
colorama	0.4.4
colorcet	3.0.0
cryptography	36.0.1
cucim	21.12.00
cudatoolkit	11.0.221

Library	Version
cudf	21.12.02
cudf_kafka	21.12.02
cudnn	8.2.1.32
cugraph	21.12.00
cuml	21.12.00
cupy	9.6.0
curl	7.80.0
cusignal	21.12.00
cuspatial	21.12.00
custreamz	21.12.02
cuxfilter	21.12.00
cycler	0.11.0
cyrus-sasl	2.1.27
cytoolz	0.11.2
dask	2021.11.2
dask-core	2021.11.2
dask-cuda	21.12.00
dask-cudf	21.12.02
datashader	0.11.1
datashape	0.5.4
debugpy	1.5.1
decorator	4.4.2
defusedxml	0.6.0
distributed	2021.11.2
dlpack	0.5
entrypoints	0.3
expat	2.4.1
faiss-proc	1.0.0
fastavro	1.4.7
fastrlock	0.8
fiona	1.8.20
font-ttf-dejavu-sans-mono	2.37
font-ttf-inconsolata	3.000
font-ttf-source-code-pro	2.038
font-ttf-ubuntu	0.83
fontconfig	2.13.1
fonts-conda-ecosystem	1
fonts-conda-forge	1
fonttools	4.28.4

Library	Version
freetype	2.10.4
freexl	1.0.6
frozenlist	1.2.0
fsspec	2021.11.1
gdal	3.3.2
geopandas	0.9.0
geopandas-base	0.9.0
geos	3.9.1
geotiff	1.7.0
gettext	0.19.8.1
gflags	2.2.2
giflib	5.2.1
git	2.34.1
glog	0.5.0
gpuci-tools	0.3.1
grpc-cpp	1.41.1
hdf4	4.2.15
hdf5	1.12.1
heapdict	1.0.1
icu	68.2
idna	2.10
imagecodecs	2021.8.26
imageio	2.13.3
importlib-metadata	4.8.3
importlib_metadata	4.8.3
importlib_resources	5.4.0
ipykernel	5.3.4
ipython	7.16.1
ipython_genutils	0.2.0
ipywidgets	7.6.5
jbig	2.1
jedi	0.17.2
jinja2	2.11.3
joblib	1.1.0
jpeg	9d
json-c	0.15
json5	0.9.5
jsonschema	3.2.0
jupyter-client	6.1.7

Library	Version
jupyter-core	4.6.3
jupyter-server	1.10.2
jupyter-server-proxy	3.2.0
jupyterlab	3.2.8
jupyterlab-server	2.7.2
jupyterlab_pygments	0.1.2
jupyterlab_widgets	1.0.2
jxrlib	1.1
kealib	1.4.14
kiwisolver	1.3.2
krb5	1.19.2
lcms2	2.12
ld_impl_linux-64	2.36.1
lerc	3.0
libaec	1.0.6
libblas	3.9.0
libbrotlicommon	1.0.9
libbrotlidec	1.0.9
libbrotlienc	1.0.9
libcblas	3.9.0
libcucim	21.12.00
libcudf	21.12.02
libcudf_kafka	21.12.02
libcugraph	21.12.00
libcuml	21.12.00
libcumlprims	21.12.00
libcurl	7.80.0
libcusolver	11.3.2.107
libcuspatial	21.12.00
libdap4	3.20.6
libdeflate	1.8
libedit	3.1.20191231
libev	4.33
libevent	2.1.10
libfaiss	1.7.0
libffi	3.4.2
libgcc-ng	9.4.0
libgcrypt	1.9.4
libgdal	3.3.2

Library	Version
libgfortran-ng	11.2.0
libgfortran5	11.2.0
libglib	2.70.2
libgpg-error	1.42
libgsasl	1.10.0
libhwloc	2.3.0
libiconv	1.16
libkml	1.3.0
liblapack	3.9.0
libllvm11	11.1.0
libnetcdf	4.8.1
libnghttp2	1.43.0
libnsl	2.0.0
libntlm	1.4
libopenblas	0.3.18
libpng	1.6.37
libpq	13.5
libprotobuf	3.18.1
librdkafka	1.6.1
librmm	21.12.00
librttopo	1.1.0
libsodium	1.0.18
libspatialindex	1.9.3
libspatialite	5.0.1
libssh2	1.10.0
libstdcxx-ng	9.4.0
libthrift	0.15.0
libtiff	4.3.0
libutf8proc	2.7.0
libuuid	2.32.1
libuv	1.42.0
libwebp	1.2.1
libwebp-base	1.2.1
libxcb	1.13
libxgboost	1.5.0dev.rapidsai21.12
libxml2	2.9.12
libzip	1.8.0
libzlib	1.2.11
libzopfli	1.0.3

Library	Version
llvm-openmp	12.0.1
llvmlite	0.37.0
locket	0.2.0
lz4-c	1.9.3
mapclassify	2.4.3
markdown	3.3.6
markupsafe	1.1.1
matplotlib-base	3.5.1
matplotlib-inline	0.1.3
mistune	0.8.4
msgpack-python	1.0.3
multidict	5.2.0
multipledispatch	0.6.0
munch	2.5.0
munkres	1.1.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.0.7
nbformat	5.1.3
nccl	2.11.4.1
ncurses	6.2
nest-asyncio	1.5.1
networkx	2.6.3
nodejs	14.17.4
notebook	6.4.3
nspr	4.32
nss	3.73
numba	0.54.1
numpy	1.20.3
nvtx	0.2.3
olefile	0.46
openjpeg	2.4.0
openssl	1.1.1l
orc	1.7.1
packaging	20.9
pandas	1.3.5
pandoc	2.16.2
pandocfilters	1.4.3
panel	0.12.4

Library	Version
param	1.12.0
parquet-cpp	1.5.1
parso	0.7.1
partd	1.2.0
pcre	8.45
pcre2	10.37
perl	5.32.1
pexpect	4.8.0
pickleshare	0.7.5
pillow	8.4.0
pip	21.3.1
pixman	0.40.0
pooch	1.5.2
poppler	21.09.0
poppler-data	0.4.11
postgresql	13.5
proj	8.1.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
protobuf	3.18.1
psutil	5.8.0
pthread-stubs	0.4
ptxcompiler	0.2.0
ptyprocess	0.6.0
py-xgboost	1.5.0dev.rapidsai21.12
py4j	0.10.9
pyarrow	5.0.0
pycparser	2.20
pyct	0.4.6
pyct-core	0.4.6
pydeck	0.5.0
pyee	8.1.0
pygments	2.8.1
pynvml	11.4.1
pyopenssl	21.0.0
pyparsing	2.4.7
pyppeteer	0.2.6
pyproj	3.1.0
pyrsistent	0.17.3

Library	Version
pysocks	1.7.1
python	3.8.12
python-confluent-kafka	1.6.0
python-dateutil	2.8.1
python_abi	3.8
pytz	2021.1
pyviz_comms	2.1.0
pywavelets	1.2.0
pyyaml	6.0
pyzmq	19.0.2
rapids	21.12.00
rapids-xgboost	21.12.00
re2	2021.11.01
readline	8.1
requests	2.25.1
requests-unixsocket	0.2.0
rmm	21.12.00
rtree	0.9.7
s2n	1.3.0
scikit-image	0.18.1
scikit-learn	1.0.1
scipy	1.7.3
send2trash	1.5.0
setuptools	59.6.0
shapely	1.8.0
simpervisor	0.4
six	1.15.0
snappy	1.1.8
sniffio	1.2.0
sortedcontainers	2.4.0
spdlog	1.8.5
sqlite	3.37.0
streamz	0.6.3
tblib	1.7.0
terminado	0.9.2
testpath	0.4.4
threadpoolctl	3.0.0
tifffile	2021.11.2
tiledb	2.3.4

Library	Version
tk	8.6.11
toolz	0.11.2
tornado	6.1
tqdm	4.62.3
traitlets	4.3.3
treelite	2.1.0
treelite-runtime	2.1.0
typing-extensions	4.0.1
typing_extensions	4.0.1
tzcode	2021e
tzdata	2021e
ucx	1.11.2+gef2bbcf
ucx-proc	1.0.0
ucx-py	0.23.0
unicodedata2	13.0.0.post2
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
websockets	9.1
wheel	0.37.0
widgetsnbextension	3.5.2
xarray	0.20.2
xerces-c	3.2.3
xgboost	1.5.0dev.rapidsai21.12
xorg-kbproto	1.0.7
xorg-libice	1.0.10
xorg-libsm	1.2.3
xorg-libx11	1.7.2
xorg-libxau	1.0.9
xorg-libxdmcp	1.1.3
xorg-libxext	1.3.4
xorg-libxrender	0.9.10
xorg-renderproto	0.11.1
xorg-xextproto	7.3.0
xorg-xproto	7.0.31
xz	5.2.5
yaml	0.2.5
yarl	1.7.2

Library	Version
zeromq	4.3.4
zfp	0.5.5
zict	2.0.0
zipp	3.6.0
zlib	1.2.11
zstd	1.5.0

Python 3.7 Libraries for JupyterLab

This section lists the packages in Python 3.7 JupyterLab Runtimes that ship with ML Runtimes 2021.12.

Table 364: Packages in Python 3.7.11 JupyterLab Runtimes - Standard

Library	Version
python	3.7.11
pip	21.1.3
anyio	3.3.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.3
idna	2.10
importlib-metadata	3.4.0
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	2.11.3

Library	Version
json5	0.9.5
jsonschema	3.2.0
jupyter-client	6.1.7
jupyter-core	4.6.3
jupyter-server	1.10.2
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	1.1.1
matplotlib	3.3.4
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.0.7
nbformat	5.1.3
nest-asyncio	1.5.1
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.1
pytz	2021.1
pyzmq	19.0.2
requests	2.25.1

Library	Version
requests-unixsocket	0.2.0
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
terminado	0.9.2
testpath	0.4.4
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
typing-extensions	3.7.4.3
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.4.0

Table 365: Packages in Python 3.7.11 JupyterLab Runtimes - Nvidia GPU Edition

Library	Version
python	3.7.11
pip	21.1.3
cuda	11.4.1-1
libcudnn8	8.2.2.26-1
anyio	3.3.0
argon2-cffi	20.1.0
async-generator	1.10
attrs	20.3.0
Babel	2.9.1
backcall	0.2.0
bitarray	2.1.0
bleach	3.3.1
certifi	2020.11.8
cffi	1.14.4
chardet	4.0.0
charset-normalizer	2.0.6
cycler	0.10.0
decorator	4.4.2
defusedxml	0.6.0
entrypoints	0.3

Library	Version
idna	2.10
importlib-metadata	3.4.0
impyla	0.17.0
ipykernel	5.3.4
ipython	7.16.1
ipython-genutils	0.2.0
jedi	0.17.2
Jinja2	2.11.3
json5	0.9.5
jsonschema	3.2.0
jupyter-client	6.1.7
jupyter-core	4.6.3
jupyter-server	1.10.2
jupyterlab	3.2.8
jupyterlab-pygments	0.1.2
jupyterlab-server	2.7.2
kerberos	1.3.1
kiwisolver	1.3.1
MarkupSafe	1.1.1
matplotlib	3.3.4
mistune	0.8.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.0.7
nbformat	5.1.3
nest-asyncio	1.5.1
notebook	6.4.3
numpy	1.19.4
packaging	20.9
pandocfilters	1.4.3
parso	0.7.1
pexpect	4.8.0
pickleshare	0.7.5
Pillow	8.4.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
ptyprocess	0.6.0
pure-sasl	0.6.2
py4j	0.10.9.1

Library	Version
pycparser	2.20
Pygments	2.8.1
pyparsing	2.4.7
pyrsistent	0.17.3
python-dateutil	2.8.1
pytz	2021.1
pyzmq	19.0.2
requests	2.25.1
requests-unixsocket	0.2.0
Send2Trash	1.5.0
six	1.15.0
sniffio	1.2.0
terminado	0.9.2
testpath	0.4.4
thrift	0.11.0
thrift-sasl	0.4.3
tornado	6.1
traitlets	4.3.3
typing-extensions	3.7.4.3
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
zipp	3.4.0

Table 366: Packages in Python 3.7.11 JupyterLab Runtimes - RAPIDS

Library	Version
python	3.7.11
pip	21.1.3
_libgcc_mutex	0.1
_openmp_mutex	4.5
abseil-cpp	20210324.2
aiohttp	3.8.1
aiosignal	1.2.0
anyio	3.3.0
appdirs	1.4.4
argcomplete	1.12.3
argon2-cffi	20.1.0
arrow-cpp	5.0.0

Library	Version
arrow-cpp-proc	3.0.0
async-timeout	4.0.1
async_generator	1.10
asynctest	0.13.0
attrs	20.3.0
aws-c-auth	0.6.7
aws-c-cal	0.5.12
aws-c-common	0.6.17
aws-c-compression	0.2.14
aws-c-event-stream	0.2.7
aws-c-http	0.6.10
aws-c-io	0.10.13
aws-c-mqtt	0.7.9
aws-c-s3	0.1.27
aws-c-sdkutils	0.1.1
aws-checksums	0.1.12
aws-crt-cpp	0.17.8
aws-sdk-cpp	1.9.145
babel	2.9.1
backcall	0.2.0
backports	1.0
backports.functools_lru_cache	1.6.4
bleach	3.3.1
blosc	1.21.0
bokeh	2.4.0
boost	1.74.0
boost-cpp	1.74.0
brotli	1.0.9
brotli-bin	1.0.9
brotlipy	0.7.0
brunsli	0.1
bzip2	1.0.8
c-ares	1.18.1
c-blosc2	2.0.4
ca-certificates	2021.10.8
cachetools	4.2.4
cairo	1.16.0
cdsw	1.1.0
certifi	2020.11.8

Library	Version
cffi	1.14.4
cfitsio	3.470
chardet	4.0.0
charls	2.2.0
charset-normalizer	2.0.6
click	8.0.3
click-plugins	1.1.1
cligj	0.7.2
cloudpickle	2.0.0
colorama	0.4.4
colorcet	3.0.0
cryptography	36.0.1
cucim	21.12.00
cudatoolkit	11.0.221
cudf	21.12.02
cudf_kafka	21.12.02
cudnn	8.2.1.32
cugraph	21.12.00
cuml	21.12.00
cupy	9.6.0
curl	7.80.0
cusignal	21.12.00
cuspatial	21.12.00
custreamz	21.12.02
cuxfilter	21.12.00
cycler	0.11.0
cyrus-sasl	2.1.27
cytoolz	0.11.2
dask	2021.11.2
dask-core	2021.11.2
dask-cuda	21.12.00
dask-cudf	21.12.02
datashader	0.11.1
datashape	0.5.4
debugpy	1.5.1
decorator	4.4.2
defusedxml	0.6.0
distributed	2021.11.2
dlpack	0.5

Library	Version
entrypoints	0.3
expat	2.4.1
faiss-proc	1.0.0
fastavro	1.4.7
fastrlock	0.8
fiona	1.8.20
font-ttf-dejavu-sans-mono	2.37
font-ttf-inconsolata	3.000
font-ttf-source-code-pro	2.038
font-ttf-ubuntu	0.83
fontconfig	2.13.1
fonts-conda-ecosystem	1
fonts-conda-forge	1
fonttools	4.28.4
freetype	2.10.4
freexl	1.0.6
frozenlist	1.2.0
fsspec	2021.11.1
gdal	3.3.2
geopandas	0.9.0
geopandas-base	0.9.0
geos	3.9.1
geotiff	1.7.0
gettext	0.19.8.1
gflags	2.2.2
giflib	5.2.1
git	2.34.1
glog	0.5.0
gpuci-tools	0.3.1
grpc-cpp	1.41.1
hdf4	4.2.15
hdf5	1.12.1
heapdict	1.0.1
icu	68.2
idna	2.10
imagecodecs	2021.8.26
imageio	2.13.3
importlib-metadata	3.4.0
importlib_metadata	4.8.3

Library	Version
importlib_resources	5.4.0
ipykernel	5.3.4
ipython	7.16.1
ipython_genutils	0.2.0
ipywidgets	7.6.5
jbig	2.1
jedi	0.17.2
jinja2	2.11.3
joblib	1.1.0
jpeg	9d
json-c	0.15
json5	0.9.5
jsonschema	3.2.0
jupyter-client	6.1.7
jupyter-core	4.6.3
jupyter-server	1.10.2
jupyter-server-proxy	3.2.0
jupyterlab	3.2.8
jupyterlab-server	2.7.2
jupyterlab_pygments	0.1.2
jupyterlab_widgets	1.0.2
jxrlib	1.1
kealib	1.4.14
kiwisolver	1.3.2
krb5	1.19.2
lcms2	2.12
ld_impl_linux-64	2.36.1
lerc	3.0
libaec	1.0.6
libblas	3.9.0
libbrotlicommon	1.0.9
libbrotlidec	1.0.9
libbrotlienc	1.0.9
libcblas	3.9.0
libcucim	21.12.00
libcudf	21.12.02
libcudf_kafka	21.12.02
libcugraph	21.12.00
libcuml	21.12.00

Library	Version
libcumlprims	21.12.00
libcurl	7.80.0
libcusolver	11.3.2.107
libcuspatial	21.12.00
libdap4	3.20.6
libdeflate	1.8
libedit	3.1.20191231
libev	4.33
libevent	2.1.10
libfaiss	1.7.0
libffi	3.4.2
libgcc-ng	9.4.0
libgcrypt	1.9.4
libgdal	3.3.2
libgfortran-ng	11.2.0
libgfortran5	11.2.0
libglib	2.70.2
libgpg-error	1.42
libgsasl	1.10.0
libhwloc	2.3.0
libiconv	1.16
libkml	1.3.0
liblapack	3.9.0
libllvm11	11.1.0
libnetcdf	4.8.1
libnghttp2	1.43.0
libnsl	2.0.0
libntlm	1.4
libopenblas	0.3.18
libpng	1.6.37
libpq	13.5
libprotobuf	3.18.1
librdkafka	1.6.1
librmm	21.12.00
librttopo	1.1.0
libsodium	1.0.18
libspatialindex	1.9.3
libspatialite	5.0.1
libssh2	1.10.0

Library	Version
libstdcxx-ng	9.4.0
libthrift	0.15.0
libtiff	4.3.0
libutf8proc	2.7.0
libuuid	2.32.1
libuv	1.42.0
libwebp	1.2.1
libwebp-base	1.2.1
libxcb	1.13
libxgboost	1.5.0dev.rapidsai21.12
libxml2	2.9.12
libzip	1.8.0
libzlib	1.2.11
libzopfli	1.0.3
llvm-openmp	12.0.1
llvmlite	0.37.0
locket	0.2.0
lz4-c	1.9.3
mapclassify	2.4.3
markdown	3.3.6
markupsafe	1.1.1
matplotlib-base	3.5.1
matplotlib-inline	0.1.3
mistune	0.8.4
msgpack-python	1.0.3
multidict	5.2.0
multipledispatch	0.6.0
munch	2.5.0
munkres	1.1.4
nbclassic	0.3.1
nbclient	0.5.1
nbconvert	6.0.7
nbformat	5.1.3
nccl	2.11.4.1
ncurses	6.2
nest-asyncio	1.5.1
networkx	2.6.3
nodejs	14.17.4
notebook	6.4.3

Library	Version
nspr	4.32
nss	3.73
numba	0.54.1
numpy	1.20.3
nvtx	0.2.3
olefile	0.46
openjpeg	2.4.0
openssl	1.1.1l
orc	1.7.1
packaging	20.9
pandas	1.3.5
pandoc	2.16.2
pandocfilters	1.4.3
panel	0.12.4
param	1.12.0
parquet-cpp	1.5.1
parso	0.7.1
partd	1.2.0
pcre	8.45
pcre2	10.37
perl	5.32.1
pexpect	4.8.0
pickle5	0.0.12
pickleshare	0.7.5
pillow	8.4.0
pip	21.3.1
pixman	0.40.0
pooch	1.5.2
poppler	21.09.0
poppler-data	0.4.11
postgresql	13.5
proj	8.1.0
prometheus-client	0.9.0
prompt-toolkit	3.0.8
protobuf	3.18.1
psutil	5.8.0
pthread-stubs	0.4
ptxcompiler	0.2.0
ptyprocess	0.6.0

Library	Version
py-xgboost	1.5.0dev.rapidsai21.12
py4j	0.10.9
pyarrow	5.0.0
pycparser	2.20
pyct	0.4.6
pyct-core	0.4.6
pydeck	0.5.0
pyee	8.1.0
pygments	2.8.1
pynvml	11.4.1
pyopenssl	21.0.0
pyparsing	2.4.7
pyppeteer	0.2.6
pyproj	3.1.0
pyrsistent	0.17.3
pysocks	1.7.1
python	3.7.12
python-confluent-kafka	1.6.0
python-dateutil	2.8.1
python_abi	3.7
pytz	2021.1
pyviz_comms	2.1.0
pywavelets	1.2.0
pyyaml	6.0
pyzmq	19.0.2
rapids	21.12.00
rapids-xgboost	21.12.00
re2	2021.11.01
readline	8.1
requests	2.25.1
requests-unixsocket	0.2.0
rmm	21.12.00
rtree	0.9.7
s2n	1.3.0
scikit-image	0.18.1
scikit-learn	1.0.1
scipy	1.7.3
send2trash	1.5.0
setuptools	59.6.0

Library	Version
shapely	1.8.0
simpervisor	0.4
six	1.15.0
snappy	1.1.8
sniffio	1.2.0
sortedcontainers	2.4.0
spdlog	1.8.5
sqlite	3.37.0
streamz	0.6.3
tblib	1.7.0
terminado	0.9.2
testpath	0.4.4
threadpoolctl	3.0.0
tifffile	2021.11.2
tiledb	2.3.4
tk	8.6.11
toolz	0.11.2
tornado	6.1
tqdm	4.62.3
traitlets	4.3.3
treelite	2.1.0
treelite-runtime	2.1.0
typing-extensions	3.7.4.3
tzcode	2021e
tzdata	2021e
ucx	1.11.2+gef2bbcf
ucx-proc	1.0.0
ucx-py	0.23.0
unicodedata2	13.0.0.post2
urllib3	1.26.6
wcwidth	0.2.5
webencodings	0.5.1
websocket-client	1.2.1
websockets	9.1
wheel	0.37.0
widgetsnbextension	3.5.2
xarray	0.20.2
xerces-c	3.2.3
xgboost	1.5.0dev.rapidsai21.12

Library	Version
xorg-kbproto	1.0.7
xorg-libice	1.0.10
xorg-libsm	1.2.3
xorg-libx11	1.7.2
xorg-libxau	1.0.9
xorg-libxdmcp	1.1.3
xorg-libxext	1.3.4
xorg-libxrender	0.9.10
xorg-renderproto	0.11.1
xorg-xextproto	7.3.0
xorg-xproto	7.0.31
xz	5.2.5
yaml	0.2.5
yarl	1.7.2
zeromq	4.3.4
zfp	0.5.5
zict	2.0.0
zipp	3.4.0
zlib	1.2.11
zstd	1.5.0

R 4.0 Libraries

This section lists the R 4.0 libraries that ship with ML Runtimes 2021.12.

Table 367: R 4.0.5 Libraries for Workbench

Library	Version
askpass	1.1
base	4.0.5
bitops	1.0-7
boot	1.3-27
brew	1.0-6
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-18
cli	3.0.1
cluster	2.1.1
codetools	0.2-18

Library	Version
colorspace	2.0-2
compiler	4.0.5
crayon	1.4.1
curl	4.3.2
datasets	4.0.5
digest	0.6.27
ellipsis	0.3.2
fansi	0.5.0
farver	2.1.0
foreign	0.8-81
ggplot2	3.3.5
glue	1.4.2
graphics	4.0.5
grDevices	4.0.5
grid	4.0.5
gtable	0.3.0
httr	1.4.2
jsonlite	1.7.2
KernSmooth	2.23-18
labeling	0.4.2
lattice	0.20-41
lifecycle	1.0.0
magrittr	2.0.1
MASS	7.3-53.1
Matrix	1.3-2
methods	4.0.5
mgcv	1.8-34
mime	0.11
munsell	0.5.0
nlme	3.1-152
nnet	7.3-15
openssl	1.4.4
parallel	4.0.5
pillar	1.6.2
pkgconfig	2.0.3
png	0.1-7
R6	2.5.1
RColorBrewer	1.1-2
RJSONIO	1.3-1.5

Library	Version
rlang	0.4.11
Rook	1.1-1
rpart	4.1-15
Rserve	1.7-0
scales	1.1.1
spatial	7.3-13
splines	4.0.5
stats	4.0.5
stats4	4.0.5
survival	3.2-10
sys	3.4
tcltk	4.0.5
tibble	3.1.4
tools	4.0.5
utf8	1.2.2
utils	4.0.5
vctrs	0.3.8
viridisLite	0.4.0
withr	2.4.2

R 4.1 Libraries

This section lists the R 4.1 libraries that ship with ML Runtimes 2021.12.

Table 368: R 4.0.5 Libraries for Workbench

Library	Version
askpass	1.1
base	4.1.1
bitops	1.0-7
boot	1.3-28
brew	1.0-6
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-19
cli	3.0.1
cluster	2.1.2
codetools	0.2-18
colorspace	2.0-2

Library	Version
compiler	4.1.1
crayon	1.3.4
curl	4.3.2
datasets	4.1.1
digest	0.6.27
ellipsis	0.3.2
fansi	0.5.0
farver	2.1.0
foreign	0.8-81
ggplot2	3.3.5
glue	1.4.2
graphics	4.1.1
grDevices	4.1.1
grid	4.1.1
gtable	0.3.0
httr	1.4.2
jsonlite	1.7.2
KernSmooth	2.23-20
labeling	0.4.2
lattice	0.20-44
lifecycle	1.0.0
magrittr	2.0.1
MASS	7.3-54
Matrix	1.3-4
methods	4.1.1
mgcv	1.8-36
mime	0.11
munsell	0.5.0
nlme	3.1-152
nnet	7.3-16
openssl	1.4.4
parallel	4.1.1
pillar	1.6.2
pkgconfig	2.0.3
png	0.1-7
R6	2.5.1
RColorBrewer	1.1-2
RJSONIO	1.3-1.5
rlang	0.4.11

Library	Version
Rook	1.1-1
rpart	4.1-15
Rserve	1.7-0
scales	1.1.1
spatial	7.3-14
splines	4.1.1
stats	4.1.1
stats4	4.1.1
survival	3.2-11
sys	3.4
tcltk	4.1.1
tibble	3.1.4
tools	4.1.1
utf8	1.2.2
utils	4.1.1
vctrs	0.3.8
viridisLite	0.4.0
withr	2.4.2

R 3.6 Libraries

This section lists the R 3.6 libraries that ship with ML Runtimes 2021.12.

Table 369: R 3.6.3 Libraries for Workbench

Library	Version
askpass	1.1
base	3.6.3
bitops	1.0-7
boot	1.3-24
brew	1.0-6
Cairo	1.2-0
caTools	1.18.2
cdsw	2.1
class	7.3-15
cli	3.0.1
cluster	2.1.0
codetools	0.2-16
colorspace	2.0-2
compiler	3.6.3

Library	Version
crayon	1.4.4
curl	4.3.2
datasets	3.6.3
digest	0.6.27
ellipsis	0.3.2
fansi	0.5.0
farver	2.1.0
foreign	0.8-75
ggplot2	3.3.5
glue	1.4.2
graphics	3.6.3
grDevices	3.6.3
grid	3.6.3
gtable	0.3.0
httr	1.4.2
jsonlite	1.7.2
KernSmooth	2.23-16
labeling	0.4.2
lattice	0.20-38
lifecycle	0.1.0
magrittr	2.0.1
MASS	7.3-51.5
Matrix	1.2-18
methods	3.6.3
mgcv	1.8-31
mime	0.11
munsell	0.5.0
nlme	3.4-144
nnet	7.3-12
openssl	1.4.4
parallel	3.6.3
pillar	1.6.2
pkgconfig	2.0.3
png	0.1-7
R6	2.5.1
RColorBrewer	1.1-2
RJSONIO	1.3-1.5
rlang	0.4.11
Rook	1.1-1

Library	Version
rpart	4.1-15
Rserve	1.7-0
scales	1.1.1
spatial	7.3-11
splines	3.6.3
stats	3.6.3
stats4	3.6.3
survival	3.1-8
sys	3.4
tcltk	3.6.3
tibble	3.1.4
tools	3.6.3
utf8	1.2.2
utils	3.6.3
vctrs	0.3.8
viridisLite	0.4.0
withr	2.4.2

ML Runtimes 2020.11

This section lists the Python and R libraries that ship with ML Runtimes 2020.11.

All ML Runtimes 2020.11 contain NumPy 1.19.2 and Matpolotlib 3.1.2.

- Matplotlib - 3.1.2
- NumPy - 1.19.2 and the Python versions, which are 3.6.10, 3.7.9, and 3.8.3