# List of Open Source Software (OSS) in Deliverables

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| Name of OSS Version of OSS Website Link License of OSS Usage of OSS |

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| Defects4J | 2.0.1 | <https://github.com/rjust/defects4j> | MIT | Dataset of reproducible bugs |
| bzip2 | 1.0.8 | <https://sourceware.org/bzip2/> | BSD-style | Compression library |
| ca-certificates | 2024.3.11 | <https://www.mozilla.org/en-US/about/governance/policies/security-group/certs/> | MPL-2.0 | Certificate Authority bundle |
| expat | 2.6.2 | <https://libexpat.github.io/> | MIT | XML parsing library |
| libcxx | 14.0.6 | <https://libcxx.llvm.org/> | Apache-2.0 with LLVM Exception | C++ Standard Library |
| libffi | 3.4.4 | <https://sourceware.org/libffi/> | MIT | Foreign Function Interface library |
| ncurses | 6.4 | <https://invisible-island.net/ncurses/> | MIT | Terminal handling library |
| openssl | 3.0.14 | <https://www.openssl.org/> | Apache-2.0 | Cryptography library |
| pip | 24.0 | <https://pip.pypa.io/> | MIT | Python package installer |
| python | 3.12.3 | <https://www.python.org/> | PSF License | Programming language |
| readline | 8.2 | <https://tiswww.case.edu/php/chet/readline/rltop.html> | GPL-3.0 | Line editing library |
| setuptools | 69.5.1 | <https://github.com/pypa/setuptools> | MIT | Python package development tools |
| sqlite | 3.45.3 | <https://www.sqlite.org/> | Public Domain | Database engine |
| tk | 8.6.14 | <https://www.tcl.tk/> | TCL/TK License | GUI toolkit |
| tzdata | 2024a | <https://www.iana.org/time-zones> | Public Domain | Timezone database |
| wheel | 0.43.0 | <https://github.com/pypa/wheel> | MIT | Python built-package format |
| xz | 5.4.6 | <https://tukaani.org/xz/> | Public Domain | Compression library |
| zlib | 1.2.13 | <https://www.zlib.net/> | Zlib License | Compression library |
| aiohttp | 3.9.5 | <https://docs.aiohttp.org/> | Apache-2.0 | Async HTTP client/server |
| aiosignal | 1.3.1 | <https://github.com/aio-libs/aiosignal> | Apache-2.0 | Async signals |
| annotated-types | 0.7.0 | <https://github.com/annotated-types/annotated-types> | MIT | Type annotation utilities |
| anyio | 4.4.0 | <https://github.com/agronholm/anyio> | MIT | Async I/O library |
| attrs | 23.2.0 | <https://www.attrs.org/> | MIT | Python class attributes |
| beautifulsoup4 | 4.12.3 | <https://www.crummy.com/software/BeautifulSoup/> | MIT | HTML/XML parser |
| boto3 | 1.34.54 | <https://aws.amazon.com/sdk-for-python/> | Apache-2.0 | AWS SDK for Python |
| botocore | 1.34.113 | <https://github.com/boto/botocore> | Apache-2.0 | AWS SDK Core |
| bs4 | 0.0.2 | <https://www.crummy.com/software/BeautifulSoup/> | MIT | BeautifulSoup wrapper |
| certifi | 2024.2.2 | <https://github.com/certifi/python-certifi> | MPL-2.0 | Certificate bundle |
| charset-normalizer | 3.3.2 | <https://github.com/Ousret/charset_normalizer> | MIT | Character encoding detector |
| click | 8.1.7 | <https://palletsprojects.com/p/click/> | BSD-3-Clause | Command line interface |
| distro | 1.9.0 | <https://github.com/python-distro/distro> | Apache-2.0 | OS platform information |
| filelock | 3.14.0 | <https://github.com/tox-dev/py-filelock> | Public Domain | File locking library |
| frozenlist | 1.4.1 | <https://github.com/aio-libs/frozenlist> | Apache-2.0 | Immutable list implementation |
| fsspec | 2024.5.0 | <https://filesystem-spec.readthedocs.io/> | BSD-3-Clause | Filesystem interfaces |
| h11 | 0.14.0 | <https://github.com/python-hyper/h11> | MIT | HTTP/1.1 protocol |
| httpcore | 1.0.5 | <https://www.encode.io/httpcore/> | BSD-3-Clause | HTTP transport library |
| httpx | 0.27.0 | <https://www.python-httpx.org/> | BSD-3-Clause | HTTP client |
| huggingface-hub | 0.23.2 | <https://huggingface.co/docs/hub/> | Apache-2.0 | ML model hub client |
| idna | 3.7 | <https://github.com/kjd/idna> | BSD-3-Clause | Internationalized domain names |
| importlib-metadata | 7.1.0 | <https://github.com/python/importlib_metadata> | Apache-2.0 | Import metadata reader |
| jinja2 | 3.1.4 | <https://palletsprojects.com/p/jinja/> | BSD-3-Clause | Template engine |
| jmespath | 1.0.1 | <https://github.com/jmespath/jmespath.py> | MIT | JSON query language |
| litellm | 1.37.19 | <https://github.com/BerriAI/litellm> | MIT | LLM API wrapper |
| markupsafe | 2.1.5 | <https://palletsprojects.com/p/markupsafe/> | BSD-3-Clause | String escaping |
| multidict | 6.0.5 | <https://github.com/aio-libs/multidict> | Apache-2.0 | Dictionary with multiple values |
| openai | 1.30.3 | <https://github.com/openai/openai-python> | MIT | OpenAI API client |
| outcome | 1.3.0.post0 | <https://github.com/python-trio/outcome> | MIT | Error handling |
| packaging | 24.0 | <https://github.com/pypa/packaging> | Apache-2.0, BSD-2-Clause | Package metadata |
| pydantic | 2.7.1 | <https://docs.pydantic.dev/> | MIT | Data validation |
| pydantic-core | 2.18.2 | <https://github.com/pydantic/pydantic-core> | MIT | Pydantic core functionality |
| pysocks | 1.7.1 | <https://github.com/Anorov/PySocks> | BSD-3-Clause | SOCKS proxy client |
| python-dateutil | 2.9.0.post0 | <https://github.com/dateutil/dateutil> | Apache-2.0, BSD-3-Clause | Date utilities |
| python-dotenv | 1.0.1 | <https://github.com/theskumar/python-dotenv> | BSD-3-Clause | Environment variable loader |
| pyyaml | 6.0.1 | <https://pyyaml.org/> | MIT | YAML parser |
| regex | 2024.5.15 | <https://github.com/mrabarnett/mrab-regex> | Apache-2.0 | Regular expressions |
| requests | 2.32.2 | <https://requests.readthedocs.io/> | Apache-2.0 | HTTP library |
| s3transfer | 0.10.1 | <https://github.com/boto/s3transfer> | Apache-2.0 | S3 file transfer |
| selenium | 4.22.0 | <https://www.selenium.dev/> | Apache-2.0 | Browser automation |
| six | 1.16.0 | <https://github.com/benjaminp/six> | MIT | Python 2/3 compatibility |
| sniffio | 1.3.1 | <https://github.com/python-trio/sniffio> | MIT | Async library detection |
| sortedcontainers | 2.4.0 | <http://www.grantjenks.com/docs/sortedcontainers/> | Apache-2.0 | Sorted collections |
| soupsieve | 2.5 | <https://facelessuser.github.io/soupsieve/> | MIT | CSS selector engine |
| tiktoken | 0.7.0 | <https://github.com/openai/tiktoken> | MIT | Token counting |
| tokenizers | 0.19.1 | <https://github.com/huggingface/tokenizers> | Apache-2.0 | Fast tokenizers |
| tqdm | 4.66.4 | <https://tqdm.github.io/> | MIT, MPL-2.0 | Progress bar |
| trio | 0.25.1 | <https://github.com/python-trio/trio> | MIT | Async I/O framework |
| trio-websocket | 0.11.1 | <https://github.com/python-trio/trio-websocket> | MIT | WebSocket client |
| typing-extensions | 4.12.0 | <https://github.com/python/typing_extensions> | PSF-2.0 | Typing backports |
| urllib3 | 2.2.1 | <https://urllib3.readthedocs.io/> | MIT | HTTP client |
| websocket-client | 1.8.0 | <https://github.com/websocket-client/websocket-client> | Apache-2.0 | WebSocket client |
| wsproto | 1.2.0 | <https://github.com/python-hyper/wsproto> | MIT | WebSocket protocol |
| xmltodict | 0.13.0 | <https://github.com/martinblech/xmltodict> | MIT | XML to dict converter |
| yarl | 1.9.4 | <https://github.com/aio-libs/yarl> | Apache-2.0 | URL handling |
| zipp | 3.19.0 | <https://github.com/jaraco/zipp> | MIT | Zipfile tools |
| javalang | 0.13.0 | <https://github.com/c2nes/javalang> | MIT | Java parser |
| toml | 0.10.2 | <https://github.com/uiri/toml> | MIT | TOML parser |
| webdriver\_manager | 4.0.2 | <https://github.com/SergeyPirogov/webdriver_manager> | Apache-2.0 | Webdriver management |