

10 Minutes to Understanding



CONDA

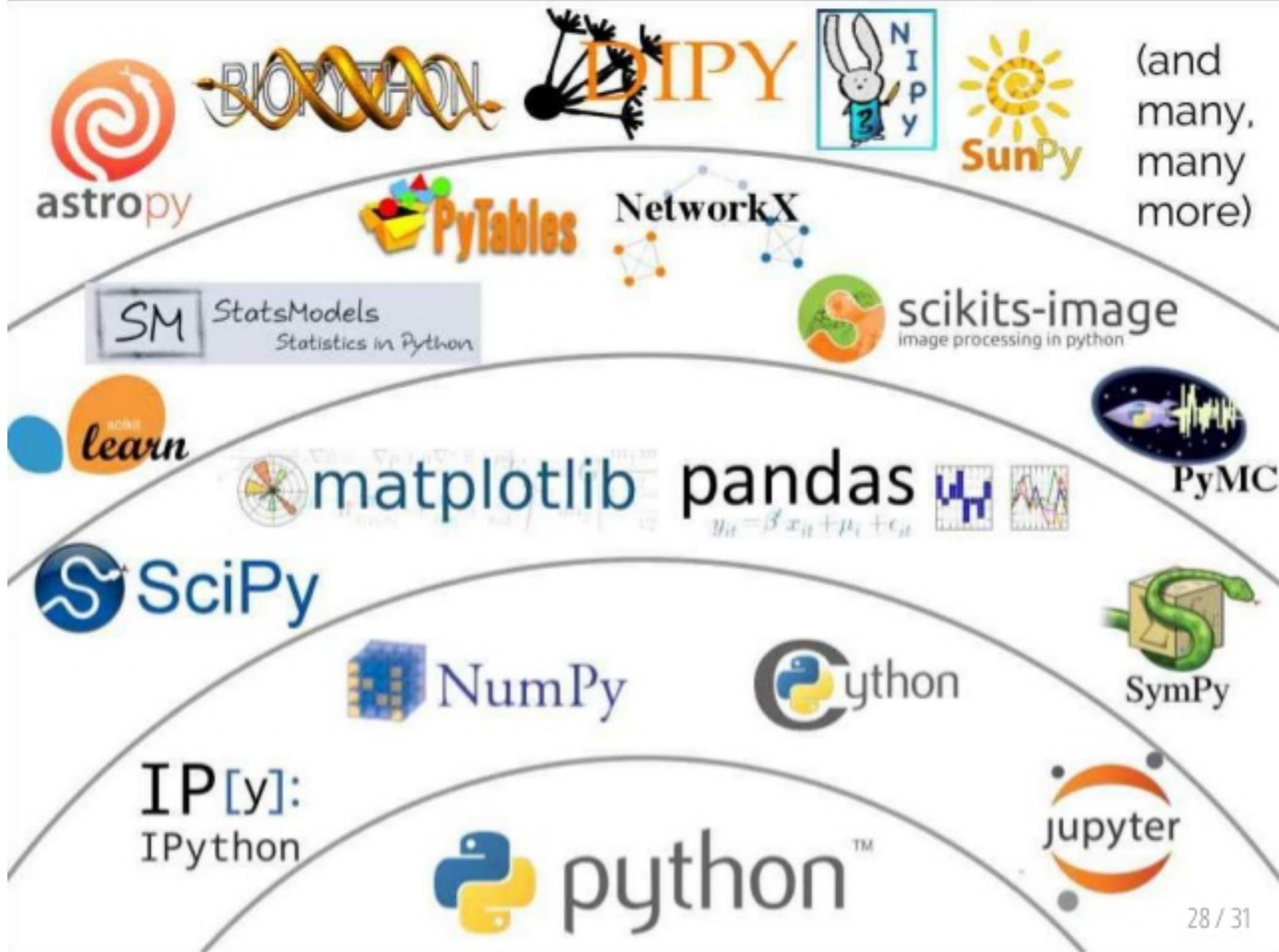


J.R. Leeman
Unidata

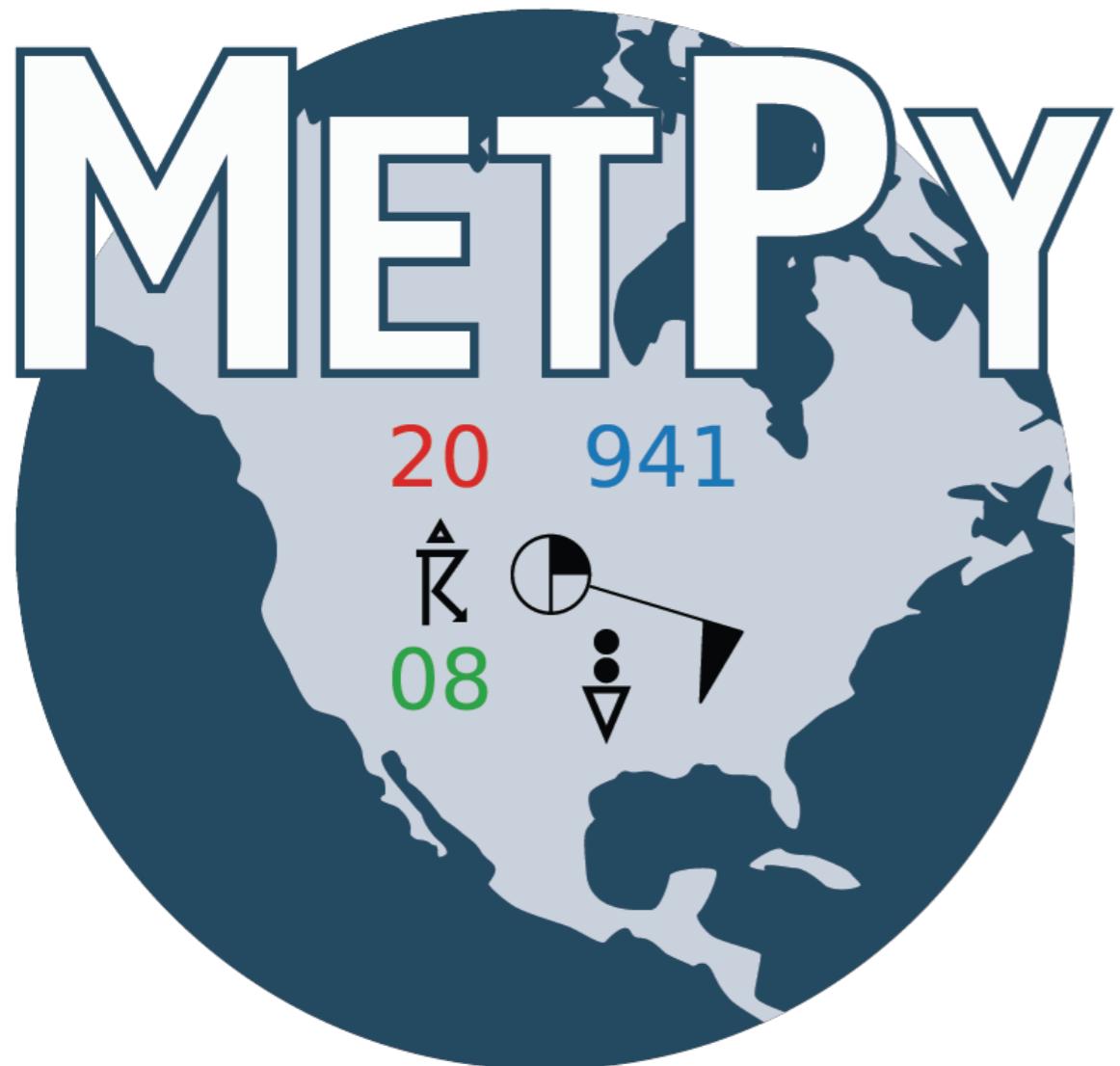
Python provides the basic interpreter for you programs



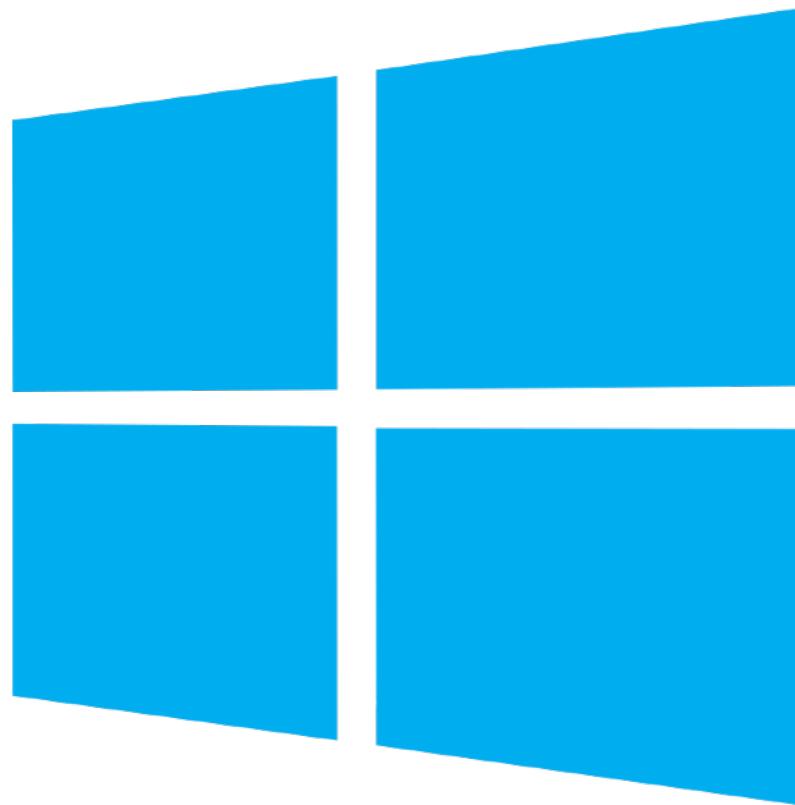
It is supplemented by a staggering number of packages for task/domain specific functionality



Unidata develops and maintains the community driven packages MetPy and siphon



Conda is a cross-platform package manager



This is a dream for packages with compiled dependencies like SciPy and NumPy!

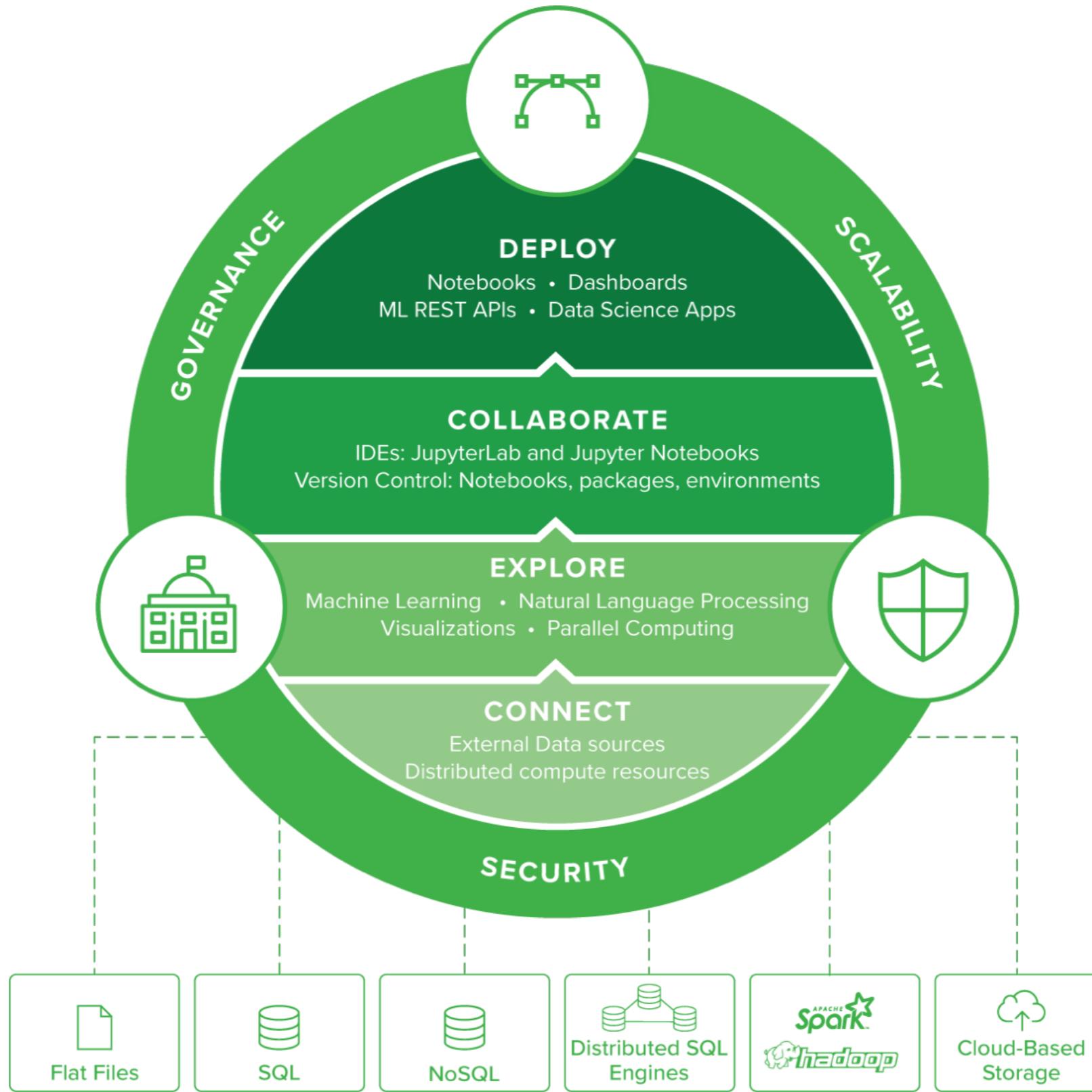
Conda was created by a company called Anaconda Inc. (formerly Continuum Analytics) and is free



ANACONDA.®



Anaconda Inc. serves business clients with Python solutions that play well together



They also provide the Anaconda and Miniconda distributions

ANACONDA.[®]

- Conda & Conda Build
- Python
- 100+ Packages that are tested to work well together including SciPy and NumPy

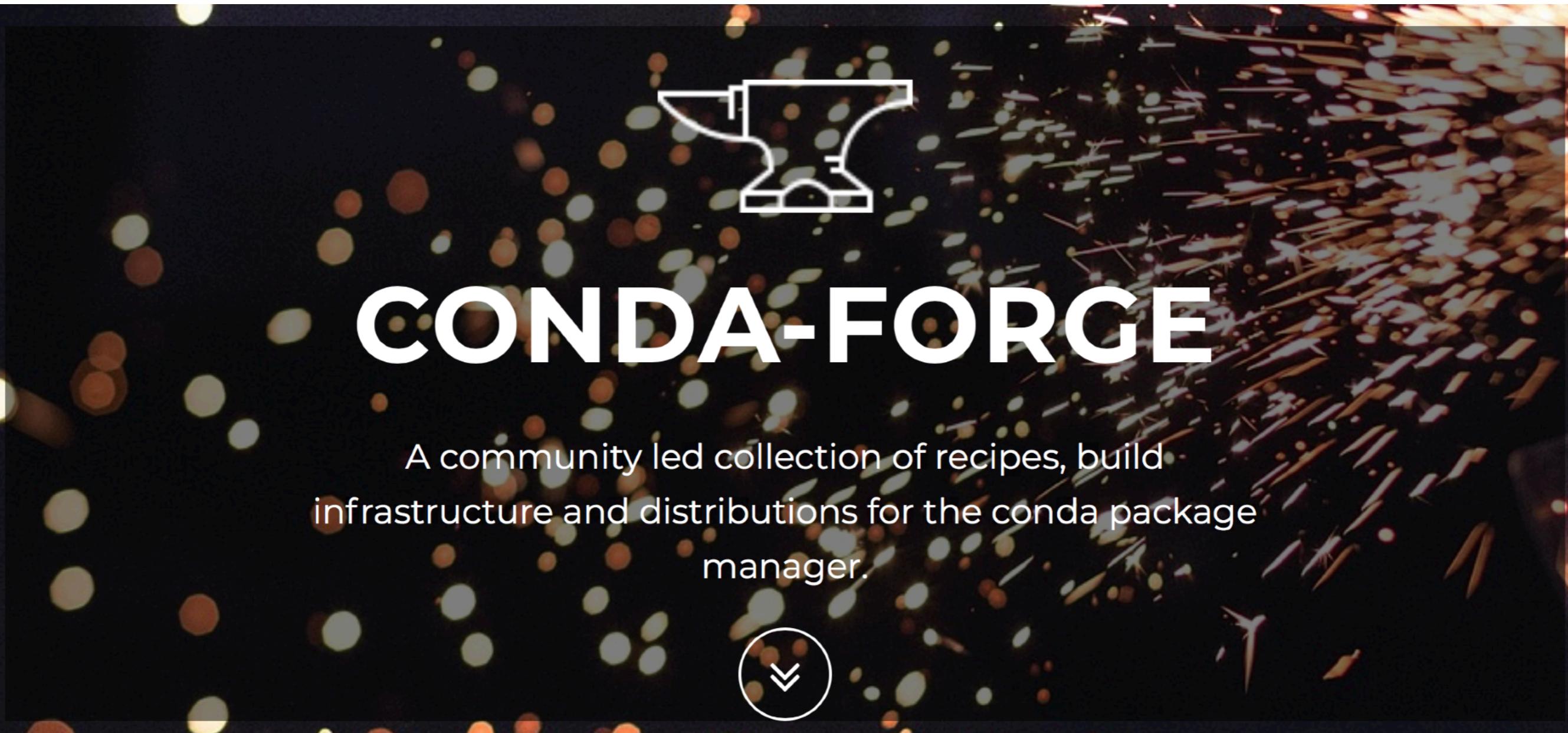
miniCONDA.[®]

- Conda
- Python
- Dependencies
- Pip and a few other utilities

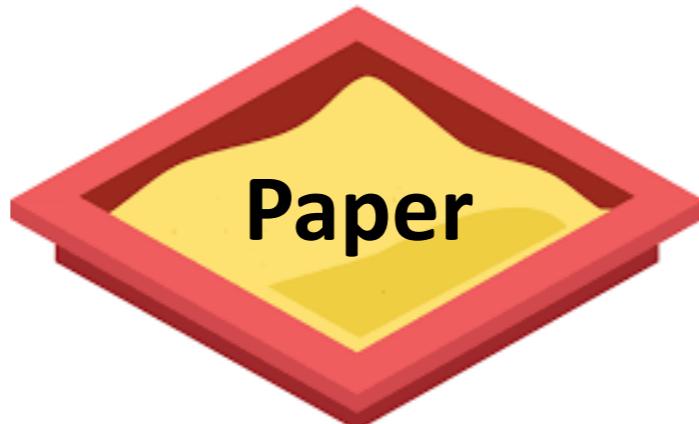
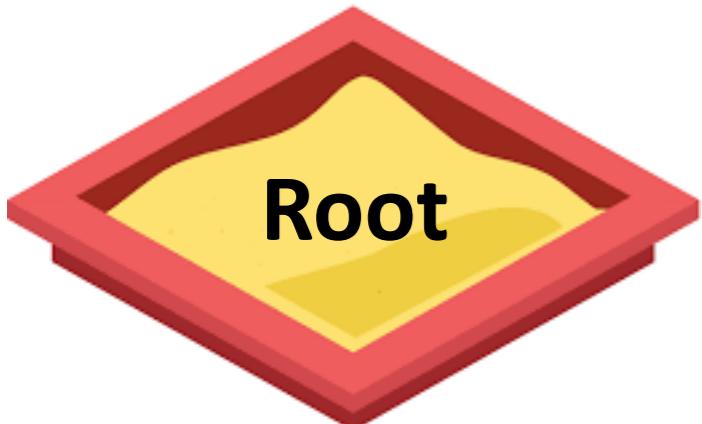
Anaconda contains many packages built and guaranteed to work together by Anaconda Inc., but they are often not the most recent and not all encompassing

| Name | Version | Summary / License | In Installer |
|---------------------------------|---------|---|--------------|
| <code>_nb_ext_conf</code> | 0.4.0 | A configuration metapackage for enabling Anaconda-bundled jupyter extensions / BSD | |
| <code>affine</code> | 2.1.0 | matrices describing affine transformation of the plane / BSD 3-clause | |
| <code>aiohttp</code> | 2.2.5 | Async http client/server framework (asyncio) / Apache 2.0 | |
| <code>alabaster</code> | 0.7.10 | Configurable, Python 2+3 compatible Sphinx theme. / BSD 3-Clause | ✓ |
| <code>anaconda-clean</code> | 1.1.0 | Delete Anaconda configuration files / BSD | |
| <code>anaconda-client</code> | 1.6.5 | anaconda.org command line client library / BSD 3-clause | ✓ |
| <code>anaconda-navigator</code> | 1.6.9 | Anaconda Navigator / proprietary - Continuum Analytics, Inc. | ✓ |
| <code>anaconda-project</code> | 0.8.0 | Reproducible, executable project directories. / BSD 3-Clause | ✓ |
| <code>anaconda-verify</code> | 1.3.8 | tool for (passively) verifying conda recipes and conda packages / BSD | |
| <code>ansi2html</code> | 1.2.0 | Convert text with ANSI color codes to HTML or to LaTeX. / General Public License v3.0 | |
| <code>anyqt</code> | 0.0.8 | PyQt4/PyQt5 compatibility layer. / GPL-3.0 | |
| <code>appdirs</code> | 1.4.3 | Python module for determining appropriate platform-specific dirs / MIT | |
| <code>appnope</code> | 0.1.0 | Disable App Nap on OS X 10.9 / BSD 2-Clause | ✓ |

CondaForge is a community driven and maintained packaging effort that can be used as a “channel” by conda



Conda allows you to create environments



You can even create files so others can duplicate your environment

```
1  # Create full conda environment for development, including some useful tools
2  name: devel
3  channels:
4      - conda-forge
5  dependencies:
6      - python=3
7      - numpy
8      - scipy
9      - matplotlib
10     - pint
11     - netcdf4
12     - pandas
13     - jupyter
14     - sphinx
15     - sphinx-gallery
16     - sphinx_rtd_theme
17     - pytest>=2.4
18     - pytest-cov
19     - pytest-flake8
20     - pytest-mpl
21     - pytest-runner
22     - flake8-builtins
23     - flake8-comprehensions
24     - flake8-copyright
25     - flake8-docstrings
26     - flake8-import-order
27     - flake8-mutable
28     - flake8-pep3101
29     - flake8-print
30     - flake8-quotes
31     - freetype=2.7
32     - pep8-naming
33     - pyproj
34     - cartopy
35     - doc8
36     - pip:
37         - recommonmark
```

Environments are really just folders and changing them modifies the path used for Python

| Name | Date Modified | Size | Kind |
|--|--------------------------|------|--------|
| ►  devel | Dec 11, 2017 at 2:12 PM | -- | Folder |
| ►  flask | Sep 15, 2017 at 3:04 PM | -- | Folder |
| ►  gallery | Nov 27, 2017 at 2:40 PM | -- | Folder |
| ►  Igtools | Jul 9, 2017 at 8:10 PM | -- | Folder |
| ►  metpydev | Nov 20, 2017 at 1:24 PM | -- | Folder |
| ►  obspy | Oct 30, 2017 at 9:57 PM | -- | Folder |
| ►  py2metpy | Oct 17, 2017 at 11:25 AM | -- | Folder |
| ►  py27 | Aug 3, 2017 at 8:14 AM | -- | Folder |
| ►  py27vmb | Nov 3, 2017 at 5:25 PM | -- | Folder |
| ►  tdsewingmachine | Jun 28, 2017 at 8:34 AM | -- | Folder |
| ►  tidedevel | Oct 27, 2017 at 2:04 PM | -- | Folder |
| ►  unidata-workshop | Today at 8:31 AM | -- | Folder |

/Users/username/miniconda3/envs

Let's get your system setup!

Conda

« <no title> Contents

Fork me on GitHub

Miniconda



Windows



Mac OS X



Linux

Python 3.6

64-bit (exe installer)

32-bit (exe installer)

64-bit (bash installer)

64-bit (bash installer)

32-bit (bash installer)

Python 2.7

64-bit (exe installer)

32-bit (exe installer)

64-bit (bash installer)

64-bit (bash installer)

32-bit (bash installer)

<https://conda.io/miniconda.html>