

Miniforge

The default installation of Miniconda may have restrictive licensing on some packages. The drop-in replacement "miniforge" will set up a similar minimal conda environment that defaults to the "conda-forge" channel of open packages.

As the packages in Python distributions can change rapidly, it is difficult to have a single, system-wide installation that is useful to everyone. We will continue to install some basic ones in /sopt, but they are not likely to change after initial build.

To let users customize a minimal Python environment that won't disturb others, we suggest installing the "Miniforge" version of the Conda Python environment. (See <https://conda-forge.org/download/> for additional info.)

Example Install 1) Python3-based conda installed in the default \$HOME/miniforge3/ directory:

```
cd
wget https://github.com/conda-forge/miniforge/releases/latest/download/Miniforge3-Linux-x86_64.sh
chmod u+x Miniforge3-Linux-x86_64.sh
./Miniforge3-Linux-x86_64.sh -b
```

Example Install A) Same as option1, but installed to /X2/SCRATCH/\$group/\$user/miniforge3/ directory, with link in home directory (allows installing very large numbers of packages that would make your home directory go over quota):

```
cd
wget https://github.com/conda-forge/miniforge/releases/latest/download/Miniforge3-Linux-x86_64.sh
chmod u+x Miniforge3-Linux-x86_64.sh
mkdir /X2/SCRATCH/$(id -gn)/$USER/miniforge3
ln -s /X2/SCRATCH/$(id -gn)/$USER/miniforge3 miniforge3
./Miniforge3-Linux-x86_64.sh -bu
```

As of 30-Marchr-2026, this installs Conda 26.1.1, which uses Python 3.13.12.

This uses about 552MB of disk space.

Once installed, you can set up the environment paths to your private version (with either install option) using:

```
ml miniforge/3/own
```

Updating will upgrade a few packages

```
conda update --all
```

Installing new packages (e.g. numpy) within your miniforge3 directory is as simple as:

```
conda install numpy
```

You can create a new environment for CPU-based PyTorch:

```
conda create --name torch-CPU pytorch torchvision torchaudio cpuonly -c pytorch
```

Or one for PyRosetta:

```
conda create --name pyrosetta -c https://conda.rosettacommons.org
```

Only one python module (miniforge/miniconda/anaconda/python/Intel-python) can be loaded at a time.

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