Python and Ruby environment

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Python

System default python3 (/usr/bin/python3) is available. Also, miniforge environments installed in /apl/conda are also available. You can install your own python environments (using pyenv, conda, uv, Rye) in your home directory.

install packages with pip3

When you need single or a few packages, installation with pip3 may be easier than conda or other tools. To install some packages in your home directory, please try to install with "pip3 install --user (package name(s))". In the following example, numpy 1.19.5 will be installed in your home directory. (Don't type leading $.)

```
$ pip3 install --user numpy==1.19.5
```

The files will be installed to ~/.local/lib/python(version)/site-packages in the default configuration.

use /apl/conda

In /apl/conda/(date) directory, there are "conda_init.sh" and "conda_init.csh" files for initialization. Please load either one of setup file according to your login shell.

bash/zsh:

```
$ . /apl/conda/20230214/conda_init.sh
```

csh/tcsh:

```
$ source /apl/conda/20230214/conda_init.csh
```

Popular packages are installed in "base" environment. In the "gpuenv" environment, CUDA toolkit and GPU-enabled PyTorch and other libraries are installed additionally. You can create your own environment based on these environments.

pyenv

You can install pyenv yourself in your home directory. We also provide pyenv command under /apl/pyenv, which you can load with "module load pyenv" or write the configuration to your ~/.bash_profile. Please refer to /apl/pyenv/README.rccs for details.

Ruby

Ruby is not installed in the system. You can prepare the latest ruby environment using rbenv and ruby-build in your home directory.