Installing PyCUDA

Steps to install PyCUDA:

1. Install and upgrade pip installer

>sudo apt install python-pip

>sudo pip install –upgrade pip

2. Setup python's virtual environment and activate the environment. Commands to setup and work with virtual environments are mentioned later in the document.

3. Install numpy

>pip install numpy

4. Install pycuda

>pip install pycuda

5. Download Demo pycuda code from PyCUDA examples wiki and run it in the environment to check if pycuda is running properly.

Footnotes:

1. Sometimes users may encounter proxy error while downloading pip or other packages. Add the below line to .bashrc file to avoid the error:

export all\_proxy=<proxy>

example:

export all\_proxy=<https://172.27.10.69:3128/>

Working with python's virtual environments:

Install Virtualenv:

>pip install virtualenv

Install Virtualenvwrapper (a wrapper of virtualenv):

>pip install virtualenvwrapper

Add the following lines to .bashrc file:

source /usr/local/bin/virtualenvwrapper.sh

export WORKON\_HOME=~/.virtualenvs

To create a virtual env:

mkvirtualenv <virtualenv name>

To access it:

workon <virtualenv name>

To quit the virtual env:

deactivate

To delete the virtual env:

>rm -rf /.virtualenvs/<virtualenv name>

References:

1. Working with virtual environments:

<http://docs.python-guide.org/en/latest/dev/virtualenvs/>

2. PyCUDA examples:

https://wiki.tiker.net/PyCuda/Examples