**.bashrc**

################################################################

#### MPI ####

################################################################

MPI\_HOME=/usr/local/openmpi

MPI\_LIB=$MPI\_HOME/lib

MPI\_BIN=$MPI\_HOME/bin

################################################################

#### CUDA ####

################################################################

CUDA\_HOME=/usr/local/cuda

export CUDA\_ROOT=$CUDA\_HOME

CUDA\_LIB=$CUDA\_HOME/lib64

CUDA\_BIN=$CUDA\_HOME/bin

################################################################

##### VIVALDI ####

################################################################

VIVALDI\_HOME=$HOME/Vivaldi\_UNIST

VIVALDI\_PATH=$VIVALDI\_HOME/src/interactive\_mode

vivaldi\_path=$VIVALDI\_HOME

################################################################

LD\_LIBRARY\_PATH=$CUDA\_LIB:$MPI\_LIB:$GPMR\_LIB:$LD\_LIBRARY\_PATH

PATH=$CUDA\_BIN:$MPI\_BIN:$VIVALDI\_PATH:$PATH:$HOME/.bin:

export LD\_LIBRARY\_PATH

export PATH

export vivaldi\_path

###############################################################

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**easy\_install**

sudo apt-get install python-setuptools

**pip**

sudo apt-get install python-pip

sudo pip install --upgrade pip

**CUDA**

link : <https://developer.nvidia.com/cuda-downloads>

sudo dpkg -i cuda-repo-ubuntu1404-7-5-local\_7.5-18\_amd64.deb

sudo apt-get update

sudo apt-get install cuda

reboot!

**PyCuda**

sudo apt-get install python-dev

tar -xzvf pycuda-2016.1.tar.gz

cd pycuda-2016.1

./setup.sh

python pycuda\_test.py

**OpenMPI**

tar -xzvf openmpi-1.10.2.tar.gz

cd openmpi-1.10.2/build

./setup.sh

cd /usr/local

sudo ln -s openmpi-1.10.2/ openmpi

cd ~/openmpi-1.10.2/example

make

./ring\_c

**mpi4py**

tar -xzvf mpi4py-2.0.0.tar.gz

cd mpi4py-2.0.0

vim mpi.cfg

# Open MPI example

# ----------------

[openmpi]

mpi\_dir = /usr/local/openmpi

mpicc = %(mpi\_dir)s/bin/mpicc

mpicxx = %(mpi\_dir)s/bin/mpicxx

#include\_dirs = %(mpi\_dir)s/include

#libraries = mpi

library\_dirs = %(mpi\_dir)s/lib

runtime\_library\_dirs = %(library\_dirs)s

python setup.py build

python setup.py install

python mpi4py\_test.py

**PI, PyOpenGL**

sudo apt-get build-dep python-imaging  
sudo apt-get install libjpeg8 libjpeg62-dev libfreetype6 libfreetype6-dev  
sudo pip install Pillow

sudo pip install PyOpenGL

sudo apt-get autoremove

sudo apt-get clean

**HDFS**

sudo pip install hdfs

**PyQT4**

sudo apt-get install libxml2-dev libxslt1-dev python-dev

sudo apt-get install python-qt4\*

sudo apt-get install qt4-dev-tools pyqt4-dev-tools

sudo apt-get autoremove

sudo apt-get clean

**pycurl**

sudo apt-get install python-pycurl