Need to install the following things:

**CUDA**

Download cuda 6.0 from this website. I didn’t use the latest because this version is compatible with the OS installed on Jetson

<http://developer.download.nvidia.com/compute/cuda/6_0/rel/installers/cuda-repo-l4t-r19.2_6.0-42_armhf.deb>

using sudo dpkg -i /path/to/deb/file followed by sudo apt-get install -f to install it.

Then set the environment variable:

# CUDA environment

CUDA=/usr/local/cuda

export PATH=$PATH:$CUDA/bin

export LIBRARY\_PATH=$LIBRARY\_PATH:$CUDA/lib

export LD\_LIBRARY\_PATH=$LD\_LIBRARY\_PATH:$CUDA/lib

export CPATH=$CPATH:$CUDA/include

export CUDA\_ROOT=$CUDA/bin

[**GFortran**](https://gcc.gnu.org/wiki/GFortran)

sudo apt-get install gfortran

The compilation of lapack need this.

**Lapack**

download lapack 3.6.1 from website

http://www.netlib.org/lapack/lapack-3.6.1.tgz

decompress it and use “make” to install it, and set the environment variable.

export LAPACK=~/lapack-\*/liblapack.a

SciPy need this dependency.

**Other Python libraries**

install PyLearn2, Lasagne, SciPy, Theano, cPickle. These python libraries can be installed from package manager “pip” or from Github’s source code according to the instruction in their “readme” file.

If “pip” is not installed, we can download it from this guide.

https://pip.pypa.io/en/stable/installing/

**Before running cifar10\_inference.py**

Modify the file “~/.theanorc”:

[global]

floatX = float32

device = gpu0

fastmath = True

[lib]

cnmem = 0.60

Lastly, change the batch size, don’t let it process 10000 images at a time.

P.S.

If having problems after reading this, feel free to contact [wz298@cornell.edu](mailto:wz298@cornell.edu) Wentao Zhang