

Installation and Assignment for “Deep Learning and Neural Networks”

Iain Dunning - IAP 2016

OVERVIEW

This class requires this software:

1. Python 2.7 (code will run with minor modification on 3.x [probably])
2. IPython/Jupyter
3. Numpy, Matplotlib, and TensorFlow

TensorFlow is not available on Windows

Well, it is kinda, there are some options out there (according to Googling), but I'd recommend saving yourself some pain and just using a **Linux virtual machine**. In particular, install VirtualBox and download a recent version of **Ubuntu**. Then you can just follow the installation instructions below.

ASSIGNMENT

Please execute the following code in Python or IPython and submit a screenshot showing it works (or copy-paste the output, or whatever you feel is appropriate to demonstrate that you installed the software):

```
import tensorflow as tf
sess = tf.Session()
a = tf.constant(10)
b = tf.constant(32)
print 'Answer to the Ultimate Question of Life,'
print 'the Universe and Everything:', sess.run(a + b)
```

INSTALLING PYTHON

You should already have Python 2.7. Test by running **python**

INSTALLING IPYTHON

See if you have **pip** installed (by trying to run it). If you don't, try

```
sudo easy_install pip
```

Now you can do

```
sudo pip install jupyter
sudo pip install ipython
```

(This would be better with **virtualenv**, then you wouldn't need to **sudo** things, but, trying to keep this simple.)

To test if it worked, run

```
ipython notebook
```

which should open your browser to the Jupyter interface.

INSTALLING NUMPY, MATPLOTLIB, & TENSORFLOW

For the first two, simply run

```
sudo pip install numpy
sudo pip install matplotlib
```

For **TensorFlow**, follows the commands at

https://www.tensorflow.org/versions/master/get_started/os_setup.html#pip-installation