



Installation Guide for Deep Learning

To execute lab exercises, demos, assignments, and projects, the following tools, software, and libraries need to be installed:

- Python
- TensorFlow
- Numpy
- Matplotlib
- Scikit-Learn

All these work with Windows, Mac, or Linux. With Windows OS, your laptop must have i5 / i7 intel or equivalent AMD processor. Once the installations are complete, update the Windows PATH variable. The new installations can be detected at run time.

Installing Anaconda Distribution 4.2.0 with Python 3.5

Step 1: Download Python using the following links. You can choose the appropriate link based on your Operating System.

Windows: <https://repo.continuum.io/archive/Anaconda3-4.2.0-Windows-x86.exe>

Windows 64 bit: https://repo.continuum.io/archive/Anaconda3-4.2.0-Windows-x86_64.exe

Mac: https://repo.continuum.io/archive/Anaconda3-4.2.0-MacOSX-x86_64.pkg

Linux: <https://repo.continuum.io/archive/Anaconda2-4.2.0-Linux-x86.sh>

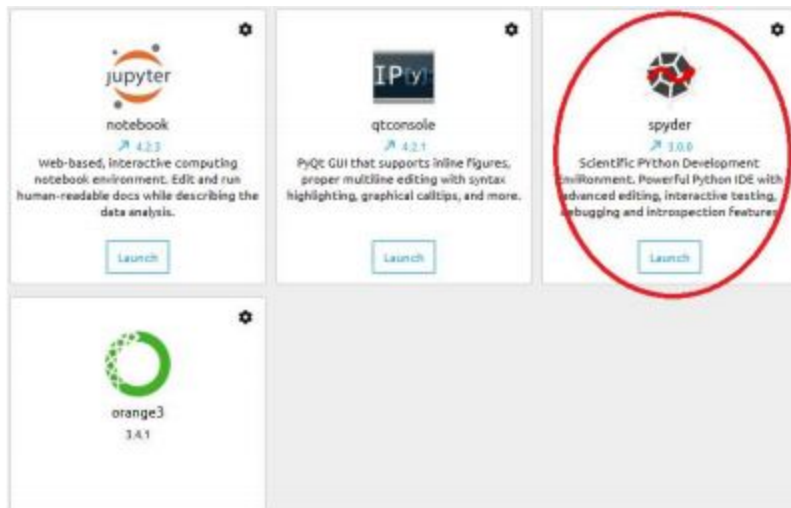
Linux 64 bit: https://repo.continuum.io/archive/Anaconda3-4.2.0-Linux-x86_64.sh

To install Python 3.5.2 click on <https://www.python.org/downloads/release/python-352/>

Step 2: Once Python and Anaconda are installed, click Windows Start button and search "Anaconda Navigator." If Anaconda is installed properly, you will see it in the programs (marked by arrow). Click Anaconda Navigator.

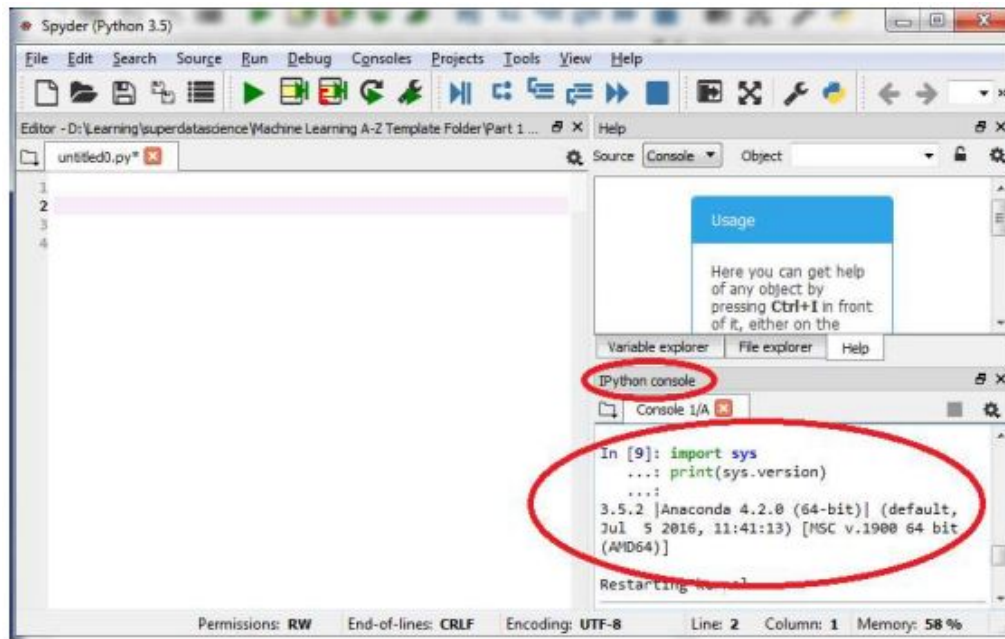


Step 3: Once you click on Anaconda Navigator, it will open a panel with some application icons. Click Launch button.



Step 4: Once you click on Launch, it will open Spyder IDE. To confirm version of Anaconda and Python, run the following command in IPython Console.

```
import sys
print(sys.version)
```



Installing TensorFlow

The following link can be used to download TensorFlow.

<https://www.tensorflow.org/install>

TensorFlow does not work with Python2.x or Python 3.6. Hence, you need to make sure that Python 3.5.x is installed and is in path first. In Windows, check `echo %PATH%` on windows command prompt and ensure that Python 3.5.x is properly installed. You can do “which python” to check which version of python is used.

If you are installing laptop Windows version and don’t have compliant Nvidia GPU processors, you can set up CPU version of TensorFlow. If you chose to install GPU version, you must meet the prerequisites listed on the website.

Installing Cython

Download and install Cython from: <http://www.lfd.uci.edu/~gohlke/pythonlibs/#cython>

Installing NumPy

Download and install NumPy from: <https://scipy.org/install.html>

Installing Matplotlib

Download and install Matplotlib from: <https://matplotlib.org/users/installing.html>

Installing Scikit-Learn

Download and install Scikit-Learn from: <http://scikit-learn.org/stable/install.html>