Installation Guide for Keras/TensorFlow + Python3 COSC 480 – Deep Learning Updated 7/31/18

Start by downloading Anaconda for Python 3.x from <u>https://www.anaconda.com/download/</u> for your specific operating system. Follow the setup, using all of the default options. You may skip the Visual Studio Code installation option.

Open Anaconda Navigator (if you are windows, right click the icon and make sure to run as administrator). You should see a screen that looks like this:



Click on Environments, then click on base, then click the dropdown box to select "All". Type in tensor in the text box and select all of the tensorflow packages listed. Click apply and then apply again when the dialog box shows up.

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Documentation				tensorflow-gpu	0			1.8.0	
Developer Blog				base tensorflow-gpu-	0			1.8.0	
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	Create Clone Import	Remove		6 packages available matching "Tensor"					

Now repeat and search for keras. Install all packages for keras.

To test your installation (we will do this in class as well):

First, start up Anaconda Navigator, then click on "Launch" under the Jupyter Notebook application. Create a new notebook by clicking on New->Python3.

Put in this code:

from keras.models import Sequential

from keras.layers import Dense

model = Sequential()

model.add(Dense(units=64, activation='relu', input_dim=100))

```
model.add(Dense(units=10, activation='softmax'))
```

```
model.compile(loss='categorical_crossentropy',
```

optimizer='sgd',

metrics=['accuracy'])

```
print(model)
```

Once executed (press shift+Return), it should show something like this:

```
<keras.engine.sequential.Sequential object at 0x000001D204316D68>
```