TensorFlow Installation Guide:

This guide will instruct you on how to install TensorFlow on your machine using Anaconda. The install done here is a basic install for the purposes of the tutorials in this repo. This install will not include TensorFlow's GPU compatibilities. For more information, please see the TensorFlow installation page on their website (https://www.tensorflow.org/install/).

Step 1: Install Anaconda

The first step is to install Anaconda. Anaconda is a python platform that works on Windows, Linux, and Mac. It includes a python build and a wide assortment of python packages and tools. Anaconda manages packages and makes sure the versions you have installed are all compatible with each other. It also allows you to create virtual environments that are good for separating your libraries and preventing them from interfering with each other, allowing different versions to be installed on your machine next to each other for different purposes. The installer for Windows and Mac can be downloaded from their website (https://www.anaconda.com/download/), if you are using Linux, a quick google search can tell you what the preferred method of installation is for your favored distribution. The python3 version is recommended as that is what we will be using in these tutorials, however it does not really matter as we will be setting up our own virtual environment.

Step 2: Setup New Anaconda Environment

In this step, you will set up a new environment that we will install TensorFlow into. To setup the environment, open the anaconda prompt and run the following command (in Linux and Mac, this can also just be run in the terminal):

```Bash
(base)$ conda -n tf pip conda_nb python=3.6
(base)$ source activate tf
(tf)$ conda install -c conda-forge matplotlib tqdm
```

This command will create a new environment called "tf" that has pip and all the Jpyter Notebook packages installed for python version 3.6. If you are familiar with Anaconda and wish to include other packages, feel free to do so. The next line switches the current environment from "base" to the new "tf" environment we just created. The last line installs matplotlib, a library of MatLab like plotting tools, and TQDM, a progress bar tool that is nice to have.

Step 3: Install TensorFlow

It is now time! We will use the recommended method of installing TensorFlow, that is through pip rather than conda. Make sure you are in the "tf" environment and type the following comman:

```Bash
(tf)$ pip install --ignore-installed --upgrade tensorflow
```

This command will install TensorFlow in the environment we created in the previous step. After this finishes, you can proceed to open the notebooks in this tutorial set. Make sure you open them with the Jupyter version that is installed in the same environment as TensorFlow (in windows, it will have (tf) in

front of it in the start menu, you can also launch it from the CLI or form the anaconda navigator in the correct environment.