Prerequisites document for AIML

Hardware Requirements:

- **Operating system:** window 7 and above with 64bit
- **RAM:** 4Gb and above
- **Hard disk:** min 100GB

Software Required:

Follow the Below steps to install required software and necessary dependencies

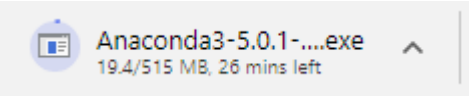
Anaconda Installation Download anaconda for windows:

Step1:

Click on the below link to download anaconda

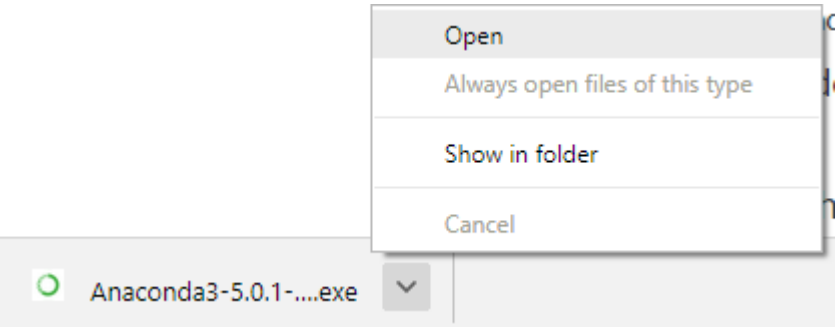
https://repo.anaconda.com/archive/Anaconda3-2019.07-Windows-x86_64.exe

The download is quite large (over 500 MB) so it may take a while to for Anaconda to download.



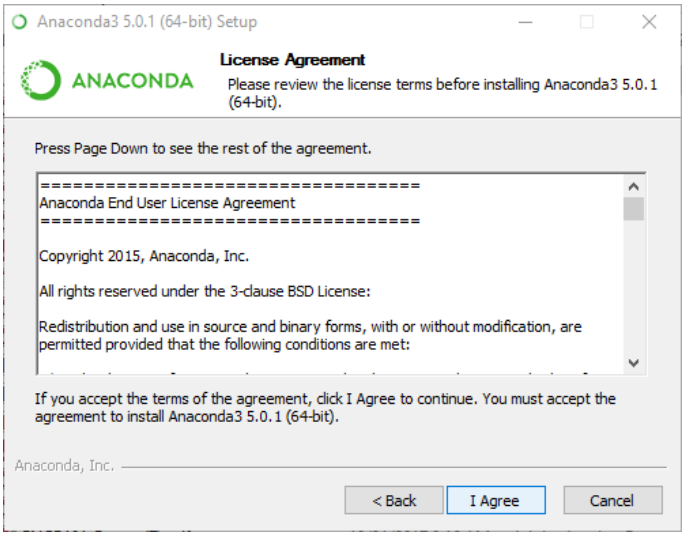
Step2 : Open and run the installer

Once the download completes, open and run the .exe installer

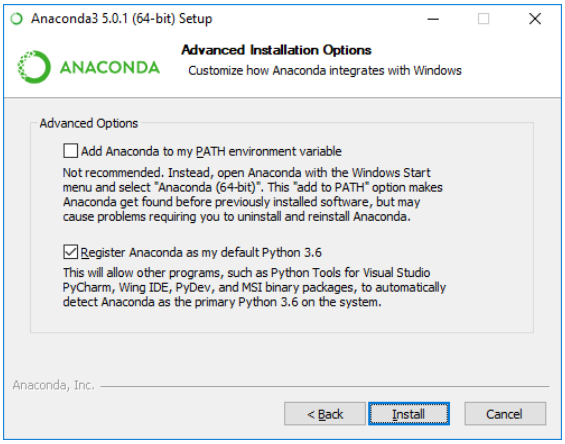


At the beginning of the install, you need to click Next to confirm the installation.

Then agree to the license.



At the Advanced Installation Options screen, I recommend that you **do not check "Add Anaconda to my PATH environment variable"**



Click on install to start installation once installation is done you can open anaconda navigator

Step3 :Open the Anaconda Prompt from the Windows start menu

After the installation of Anaconda is complete, you can go to the Windows start menu and select the Anaconda Prompt.

This opens the Anaconda Prompt. Anaconda is the Python distribution and the Anaconda Prompt is a command line shell (a program where you type in commands instead of using a mouse).

On anaconda prompt, type python and hit [Enter]. The python command starts the Python interpreter, also called the Python REPL (for Read Evaluate Print Loop).

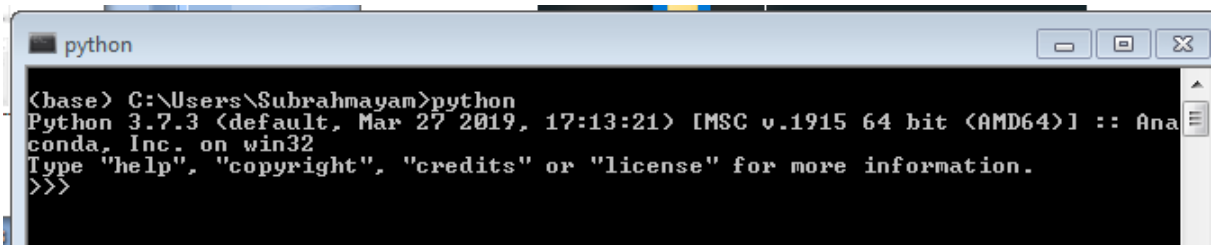
> >python

Note the Python version. You should see something like Python 3.6.1. With the interpreter running, you will see a set of greater-than symbols >>> before the cursor.

To close the Python interpreter, type exit() at the prompt >>>. Note the double parenthesis at the end of

the exit() command. The () is needed to stop the Python interpreter and get back out to the Anaconda

Prompt



To close the Anaconda Prompt, you can either close the window with the mouse, or type exit, no parenthesis necessary.

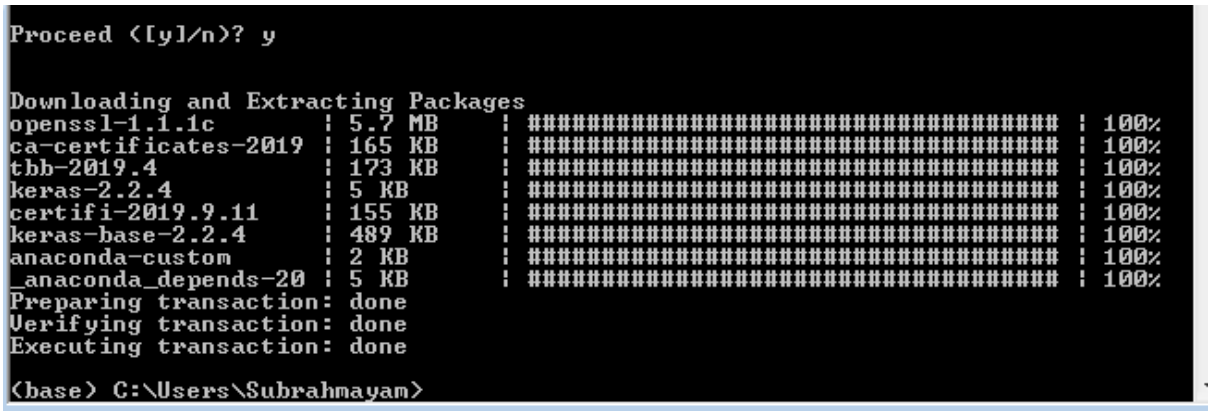
When you want to use the Python interpreter again, just click the Windows Start button and select the Anaconda Prompt and type python.

Installing the dependencies

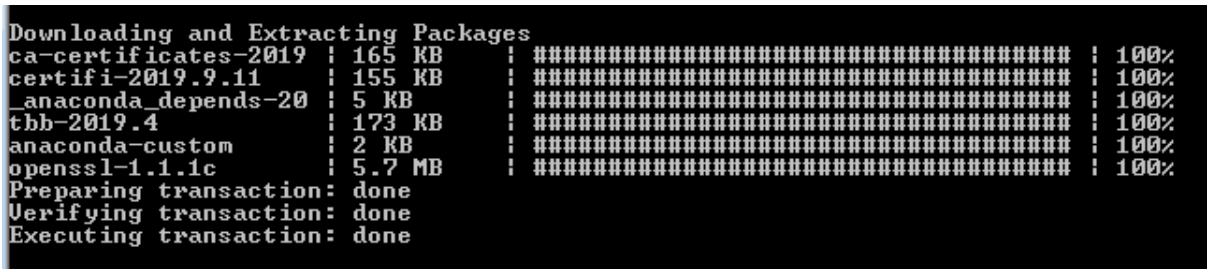
Install Tensorflow:

- Open anaconda prompt and execute the below command or use **pip install tensorflow** to install tensorflow library and press enter.

- Press enter if it is prompting you to continue/ proceed



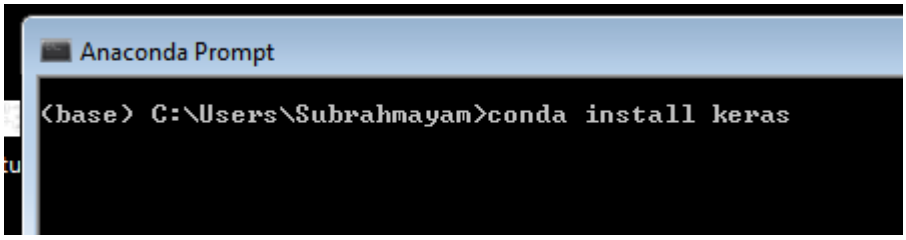
- You should see successfully installed messages after installation /it will look like below image after installation



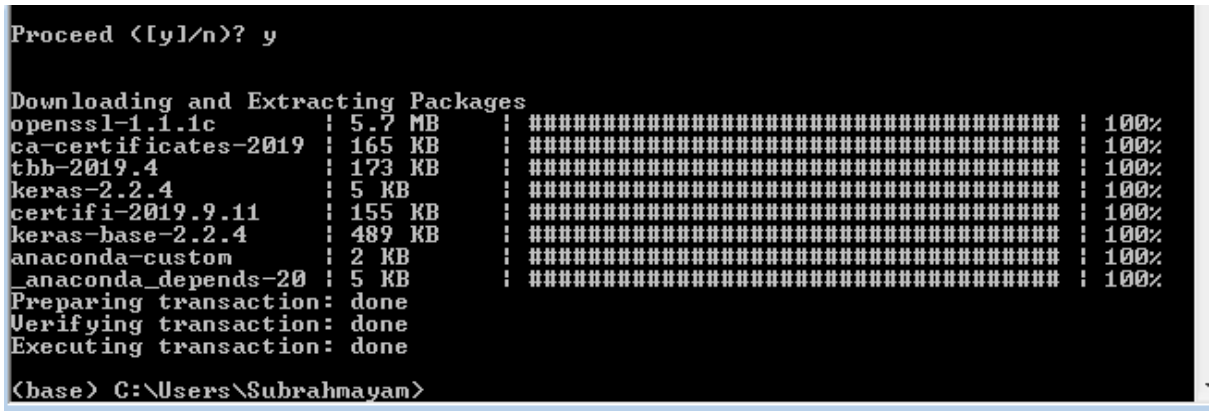
Note: it will take a few minutes based on the processing speed

Install Keras:

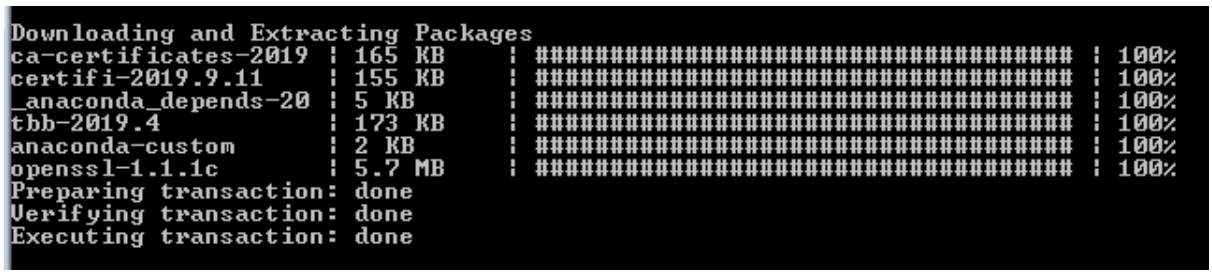
- Open anaconda prompt and execute the below command or **pip install keras** to install keras library and press enter.



- Press enter if it is prompting you to continue



- You should see successfully installed message/it will look like below image after installation



Note: it will take a few minutes based on the processing speed.

Install Opencv:

- Open anaconda prompt and execute the below command or **pip install opencv-python** to install Open cv library and press enter.

- Press enter if it is prompting you to continue

```
Proceed ([y]/n)? y


Downloading and Extracting Packages
openssl-1.1.1c        | 5.7 MB    | ##################################### | 100%
ca-certificates-2019  | 165 KB    | ##################################### | 100%
tbb-2019.4            | 173 KB    | ##################################### | 100%
keras-2.2.4           | 5 KB      | ##################################### | 100%
certifi-2019.9.11     | 155 KB    | ##################################### | 100%
keras-base-2.2.4      | 489 KB    | ##################################### | 100%
anaconda-custom       | 2 KB      | ##################################### | 100%
_anaconda_depends-20  | 5 KB      | ##################################### | 100%
Preparing transaction: done
Verifying transaction: done
Executing transaction: done

(base) C:\Users\Subrahmayam>
```

- You should see successfully installed message/it will like below image after installation

```
Downloading and Extracting Packages
h5py-2.8.0            | 833 KB    | ##################################### | 100%
opencv-3.4.1          | 9 KB      | ##################################### | 100%
hdf5-1.10.2           | 34.8 MB   | ##################################### | 100%
libopencv-3.4.1       | 37.0 MB   | ##################################### | 100%
py-opencv-3.4.1       | 1.5 MB    | ##################################### | 100%
pytables-3.4.4        | 2.7 MB    | ##################################### | 100%
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
```

check whether All the dependencies are installed

- type “python” on anaconda prompt, your “python shell” with “>> “symbol is opened
- Type “**import tensorflow”** and press enter
- It should not throw any error
- Type **“import keras”** and press enter
- it should not throw any error and should print **using tensorflow as backend**
- Type **“import cv2”** and press enter
- It should not throw any error

```
Anaconda Prompt - python

(base) C:\Users\Subrahmayam>python
Python 3.7.3 (default, Mar 27 2019, 17:13:21) [MSC v.1915 64 bit (AMD64)] :: Ana
conda, Inc. on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import tensorflow
>>> import keras
Using TensorFlow backend.
>>> import cv2
>>>
```

Note: if conda prompt throws an error while executing the above steps, please try installing all the libraries again

Tableau Software Installation and License Activation Procedure

Step 1: Download the Tableau Software

Windows (64 bit): https://www.tableau.com/products/desktop/download?signin=academic

Mac: https://www.tableau.com/downloads/desktop/mac

Step 2: Install the Tableau Software

Step 3: Apply the License/Product Key

Product key (Student): TCJN-DB37-D070-94BE-0315

Watch the video to know more about Installation and Activation Procedure: Click Here