

1. **Python3 + Libraries:** `sudo apt-get install python3-pip python3-setuptools python3-matplotlib python3-scipy python3-numpy python3-h5py python3-mako python3-nose libprotobuf-c1 python3-tqdm python3-werkzeug python3-wheel python3-xopen python3-appdirs python3-click python3-flask python3-packaging python3-pandas`

```
sudo pip3 install scikit-learn opencv-python scikit-image
```

2. **Nvidia Deeplearning Libraries cuDNN and CUDA Installation FOR CPU:**

If your PC does not have an NVIDIA GPU, then skip Step#3

3. **Nvidia Deeplearning Libraries cuDNN and CUDA Installation FOR GPU:** You've to get following packages from <https://developer.nvidia.com/rdp/cudnn-download>

1. CUDA 9.0
2. cuDNN 7

Install the packages using following commands.

```
sudo dpkg -i cuda-repo-ubuntu1604-9-0-local_9.0.176-1_amd64.deb
```

```
sudo apt-get update
```

```
sudo apt-get install cuda-9-0
```

```
sudo dpkg -i libcudnn7_7.0.5.15-1+cuda9.0_amd64.deb cuda-repo-ubuntu1604-9-0-local_9.0.176-1_amd64.deb
```

#### 4. Deep Learning Libraries

##### **Tensorflow Installation:**

1. (For GPU) `sudo pip3 install tensorflow-gpu==1.9`
2. (For CPU) `sudo pip3 install tensorflow==1.9`

**Jupyter Installtion:** `sudo pip3 install jupyter`

**Keras Installation:** `sudo pip3 install keras`