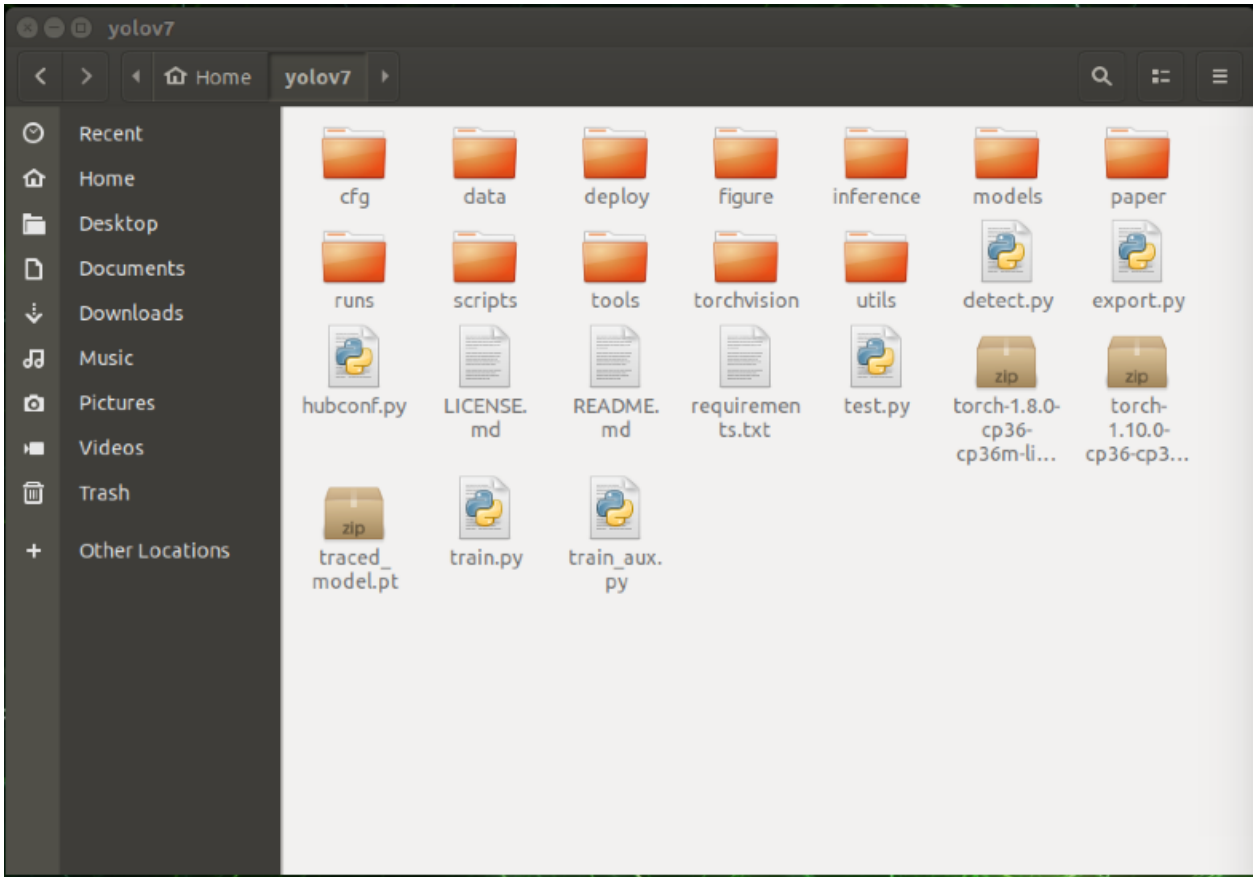
INSTALLING YOLOV7 ON JETSON NANO

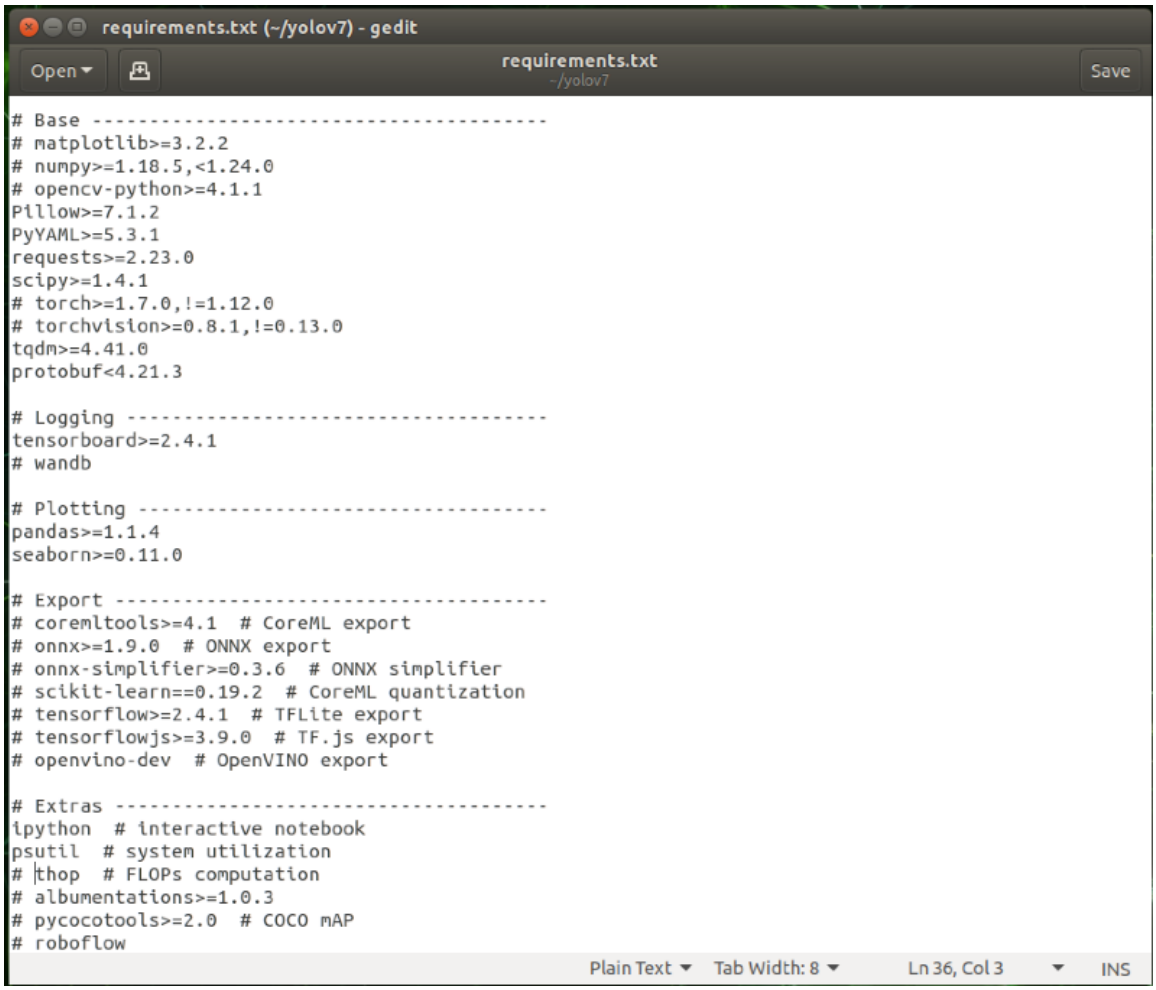
1. Download the latest SD card image from:
    - https://developer.nvidia.com/embedded/learn/get-started-jetson-nano-devkit#write
2. Boot up Jetson Nano and do initial setup
3. Download and install pre-requisites
    - $ sudo apt update
    - $ sudo apt install python3-pip
    - $ pip check
    - $ sudo apt install libfreetype6-dev
    - $ pip3 install --upgrade pip setuptools wheel
    - $ python3 -m pip install --upgrade --force-reninstall pip
    - $ pip3 install numpy==1.19.4
4. Download and install YOLO v7 repository
    - $ git clone https://github.com/WongKinYiu/yolov7.git
    - $ cd yolov7



5. Edit then run requirements.txt file
    - $ gedit requirements.txt
    - comment out
        - Matplotlib

- Numpy
- opencv-python
- Torch
- Torchvision
- thop

- $ pip3 install -r requirements.txt



6. Download PyTorch v1.8.0 from https://forums.developer.nvidia.com/t/pytorch-for-jetson/72048
    - download torch-1.8.0-cp36-cp36m-linux_aarch64.whl
    - $ wget https://nvidia.box.com/shared/static/p57jwntv436lfrd78inwl7iml6p13fzh.whl -O torch-1.8.0-cp36-cp36m-linux_aarch64.whl
    - $ sudo apt-get install python3-pip libopenblas-base libopenmpi-dev libomp-dev
    - $ pip3 install Cython
    - $ pip3 install torch-1.8.0-cp36-cp36m-linux_aarch64.whl
7. Download and install TorchVision

- $ sudo apt-get install libjpeg-dev zlib1g-dev libpython3-dev libavcodec-dev libavformat-dev libswscale-dev
- $ git clone --branch v0.9.0 https://github.com/pytorch/vision torchvision # see below for version of torchvision to download
- $ cd torchvision
- $ export BUILD_VERSION=0.9.0
- $ python3 setup.py install --user
- $ cd ../