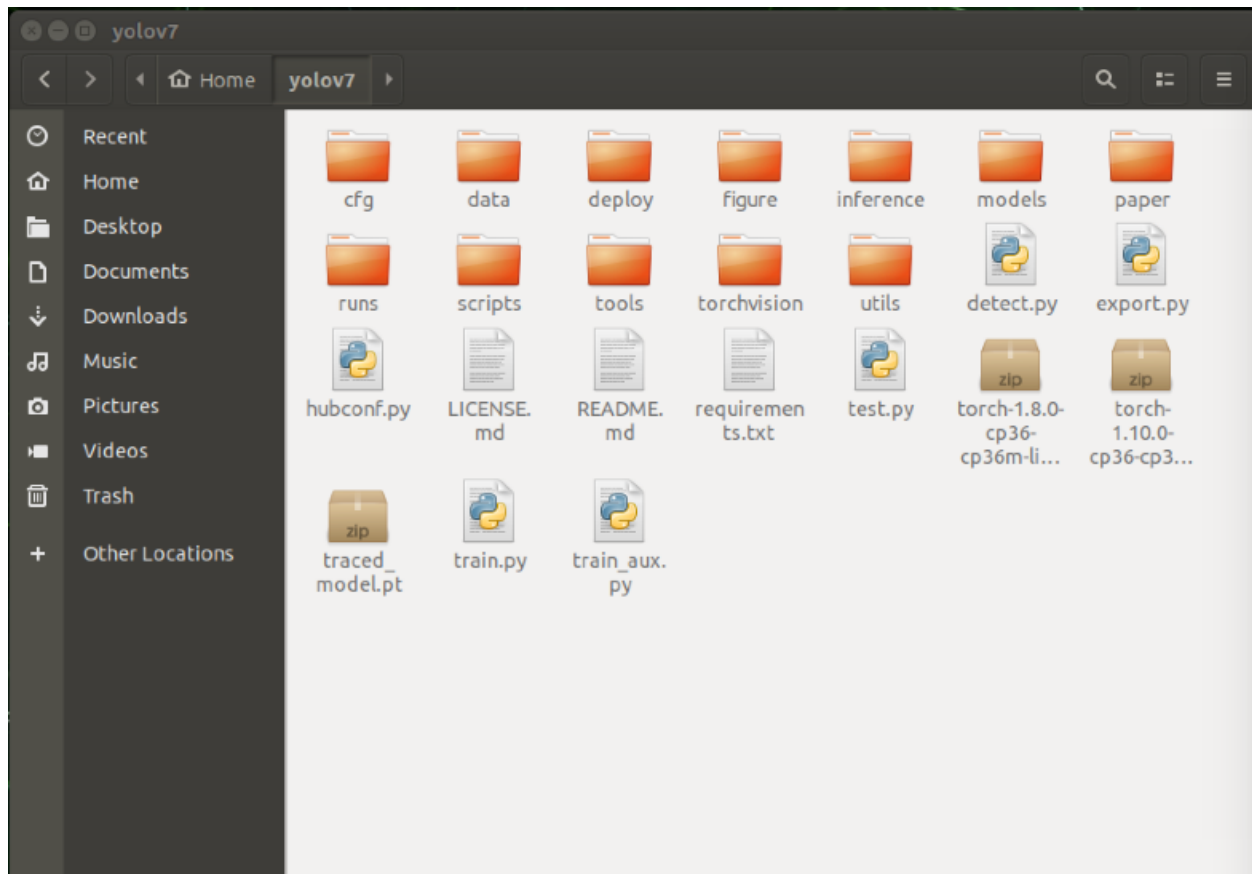


INSTALLING YOLOV7 ON JETSON NANO

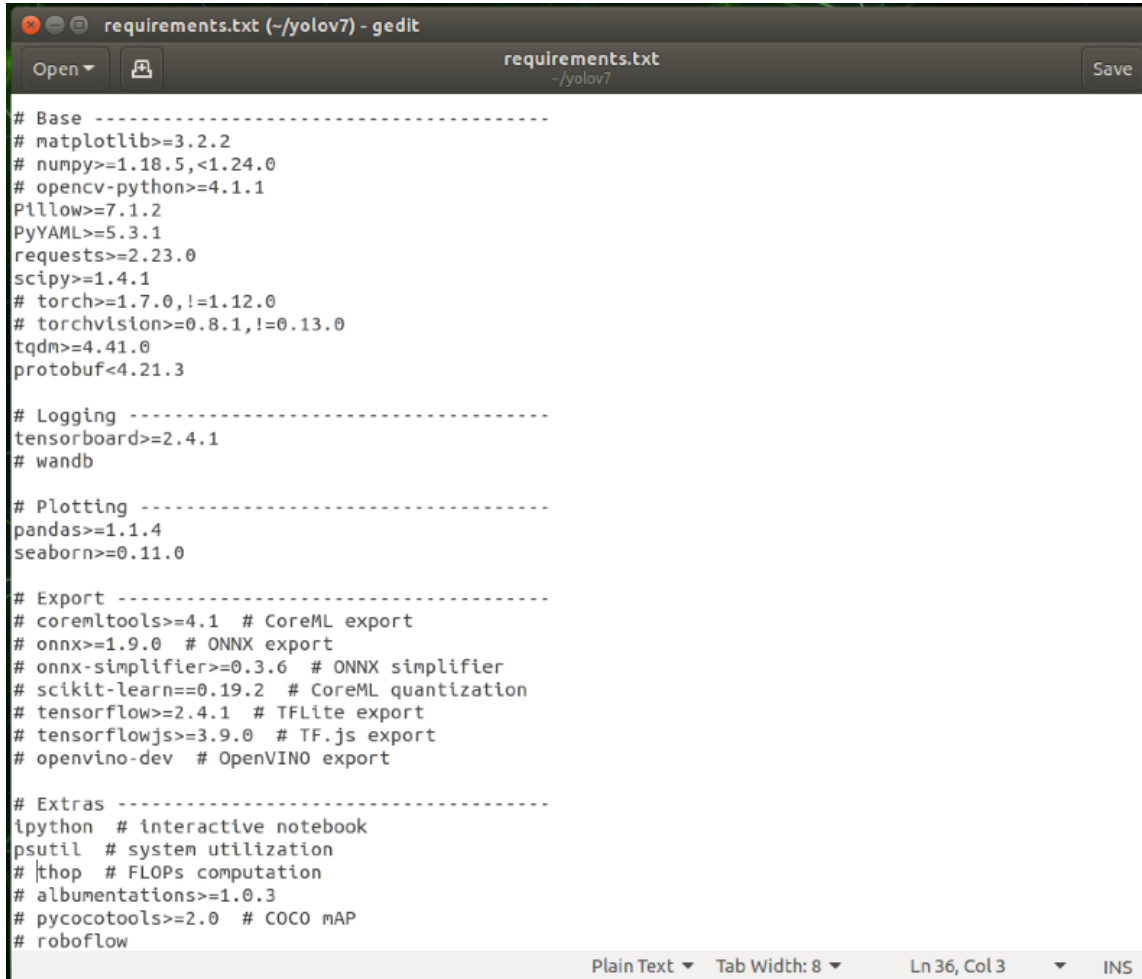
1. Download the latest SD card image from:
 - <https://developer.nvidia.com/embedded/learn/get-started-jetson-nano-devkit#write>
2. Boot up Jetson Nano and do initial setup
3. Download and install pre-requisites
 - `$ sudo apt update`
 - `$ sudo apt install python3-pip`
 - `$ pip check`
 - `$ sudo apt install libfreetype6-dev`
 - `$ pip3 install --upgrade pip setuptools wheel`
 - `$ python3 -m pip install --upgrade --force-reinstall 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

INSTALLING YOLOV7 ON JETSON NANO

- Numpy
- opencv-python
- Torch
- Torchvision
- thop
- \$ pip3 install -r requirements.txt



```
# requirements.txt (-/yolov7) - gedit

# Base -----
# matplotlib>=3.2.2
# numpy>=1.18.5,<1.24.0
# opencv-python>=4.1.1
Pillow>=7.1.2
PyYAML>=5.3.1
requests>=2.23.0
scipy>=1.4.1
# torch>=1.7.0,!1.12.0
# torchvision>=0.8.1,!0.13.0
tqdm>=4.41.0
protobuf<4.21.3

# Logging -----
tensorboard>=2.4.1
# wandb

# Plotting -----
pandas>=1.1.4
seaborn>=0.11.0

# Export -----
# coremltools>=4.1 # CoreML export
# onnx>=1.9.0 # ONNX export
# onnx-simplifier>=0.3.6 # ONNX simplifier
# scikit-learn==0.19.2 # CoreML quantization
# tensorflow>=2.4.1 # TFLite export
# tensorflowjs>=3.9.0 # TF.js export
# openvino-dev # OpenVINO export

# Extras -----
ipython # interactive notebook
psutil # system utilization
# thop # FLOPs computation
# albumentations>=1.0.3
# pycocotools>=2.0 # COCO mAP
# roboflow
```

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>
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 ../`