This file gives instructions to run the scripts and details about the scripts and files.

Scripts with their sequence to run:

- **extract_chip.py:** creates 40x80 chips to train the networks.
- **center_crop_chip:** crops 40x80 chips to 20x40 to generate the qcf filters for the first layer.
- **hard_clutter_tcrnet2_chip.py:** creates hard clutter for booster TCRNet 2
- **qcf_basis.py:** generates the qcf filters.
- **train_tcr2.py:** trains both TCRNet-2 and TCRNet-2 booster models
- **test_tcr2.py:** run this script to test TCRNet.
- **roc_multiple_TCRNets.py:** run this script to plot the ROC curves.

The following scripts are called in the above scripts.

- **tcr_cnn_2streams.py**: this script contains model architecture.
- **imresize.py**: scales images to 2500m range
- **crop.py**: crops images

Folders and file:

- **weights_filters** directory contains trained models and filters.

- **data** directory contains 3 json files containing test images information at ranges 2.5km, 3.0km, 3.5km respectively. It also contains train and test data.
    - test_25to35all.json = both day and night images
    - test_25to35day.json = day images
    - test_25to35night.json = night images

- requirement.txt lists all Python libraries required for this project.