

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

### Sequence to run the scripts:

1. **qcf\_basis.py**: to generate filters for the first layer in TCRNet-1.
2. **train\_tcr.py**: to train TCRNet-1
3. **validate\_tcr.py**: to test the model and get detections on new/test frames.
4. **roc.py**: to plot the ROC curve.

The following script is called in **validate\_tcr.py**

- **tcr\_cnn.py**: this script contains model architecture.

### Folders and file:

- **data** directory contains data required for train and test.
  - test\_25to35all\_example.json file contains all information about the test frames i.e. frame name, frame number, target location, target category etc. Some of the fields in this file may not necessary.
  - Data is in .mat format.
- **weights\_filters** directory contains weights of trained model, and filters of first layer.
- **output** directory contains output from validate\_tcr script and the ROC curve from roc script.
- **requirement.txt** lists all Python libraries required for this project.