Prediction learning:

**Data generation:**

Prediction\_learning/help\_scripts/convert\_dataset.sh

Scripts that transform data from dumped data (from fusion) to the data can be used for learning.

Test\_check.py to check if the generated data is good for training.

Combined\_mask is used to filter grid map as the input, and concantanate occluded map.

Generated data sets:

Combined\_masks: road only

Compressed\_96x96: all five channels included.

Extracted\_horizon\_96x96: road and lines images (bw images)

Occluded\_ims\_96x96: feh –D 0.01 \* (for observation only)

Occlusion\_96x96: for observation only

Occup\_96x96: original grid map being scaled and cropped

Occupmask\_96x96: convert grid map to bw image (all the occluded area is empty now)

Splitted\_occup\_96x96\_0 and 1 to get 5 fps for two datasets.

Translation\_96x96: after STM

**Data loading:**

Prescale = -1 ? no scale before cropping.

Prescale = 337 (real final image size you want to scale)

Occup\_steps = 1 (how many pixels you want to use from first line of images in occluded area)

Step\_size = 5 ( just move 5 steps from previous sequence forward for next sequence)

Frame\_composing = 2 (from 10 to 5 fps) if =1 means 5 fps

It will about 30-45 mins to preprocess all data. (50 minutes big loops data)

Utils.py: only for training visualization purpose

Ops.py define all network architectures

Load\_gridmap.py:

Load\_gridmpa\_onmove is used for now.

K – ground truth T- Predicted from MCNet

Action\_conditional input: 6 (try and error)

Beta=0 not use GAN

Gradience in one GPU, and others on another GPU.