

## 1 Files

There are 6 python files, `dataset.py`, `inference.py`, `models.py`, `spectral_normalization.py`, `vis_tools.py` and `train.py`.

**dataset.py** contains all dataloader codes to load data from our dataset.

**inference.py** aims to generate results of our trained network, you can load weights and save results use inference file.

**spectral\_normalization.py** is a pre-design layer for our discriminator, basically what this file did is adding more stable strategy to implement convolution layers.

**vis\_tools.py** contains all functions for visualising results in visdom.

**train.py** is the main function, which we forward and back propagate GAN network and update weights.

## 2 How to Run code?

**python train.py** for training.

**python inference.py** for generating results.

Our code should run on GPU with no less than 8 GB memory, you can assign which gpu to run the code. Real time result will show in visdom, you can assign ip and port in `train.py`.

Weights will save in `models` folder automatically.

For baselines, run `train_baseline.py` instead. Same steps and similar `train.py` codes.

`Inference.py` will generate masks, rgb content, edges of both single objects and whole scene. Results will be save in one folder automatically, you could assign folder name in `inference.py`.