We pre-train our model with 100 epochs on Caltech dataset in a single-gpu, run:

**python train.py --data\_root [Root directory of dataset] --learning\_rate 0.0003 --epochs 100 --batch\_size 256 --gpu 0**

train.py: The purpose of this file is to train model.

dataloader.py: The purpose of this file is to load various datasets.

loss.py: The purpose of this file is to calculate the loss.

metric.py: The purpose of this file is to calculate three kinds of clustering metric.

network.py: The purpose of this file is to obtain the network of our entire model.

utils.py: The purpose of this file is to build common tool approaches.