# SiameseNetwork trained by Contrastive Loss

Training Example:

python3 isc2021/baselines/Siamese.py

--train

--query\_list isc2021/list\_files/subset\_1\_queries

--gt\_list isc2021/list\_files/subset\_1\_ground\_truth.csv

--train\_list isc2021/list\_files/train

--db\_list isc2021/list\_files/subset\_1\_references

--epoch 2

--model visformer

--batch\_size 5

--len 2000

--lr 0.00003

--weight\_decay 0.00005

--i0 0

--i1 400

Options:

--transpose: insert one of the 7 PIL transpose, default:-1

--train: train network or use network for feature extraction

--device: pytorch device, default:¡±cuda:0¡±

--batch\_size: Dataloader batch size

--num\_workers: number of Dataloader workers

Model Options:

--model: select pretrained model

--lr: learning rate

--weight\_decay: l2 regularization weight

Model list:

zoo\_resnet50: use resnet50 from pytorch

multigrain\_resnet50: use resnet50 from facebook

vgg

resnet152

efficientnetb1

efficientnetb7

visformer: visual transformer vit\_large\_patch16\_384

Dataset Options:

--query\_list: path to file with name of query images

--db\_list: path to file with name of reference images

--gt\_list: path to file with list of ground truth

--train\_list: path to file with name of images in training dataset

--len: lenth of validation set

--epoch: epoch of training, each epoch use different sequence of argumentations

--i0and --i1: choose part of training list i0 is start index, i1 is end index

Output Options:

--net: save checkpoint to this folder