ASSIGNMENT-2: Multi-View CNN for Shape Classification

Submitted By:

Himanshu Gupta

hgupta@umass.edu

32691528

With *train corrmask = 0*

Distance Threshold – 0.02

Testing Matching Accuracy: 91.15%

```
Epoch: 98 | LR: 0.00100000
=> Current model is the best according to validation accuracy
Epoch98. train_loss: 925.89570509. train_acc: 0.93690582.
Epoch98. val_loss: 1079.00412750. val_acc: 0.92608309.
Epoch98. test_loss: 1094.94688416. test_acc: 0.91159552.
```

Distance Threshold – 0.01

Testing Matching Accuracy: 51.87%

```
Epoch: 99 | LR: 0.00100000
Epoch99. train_loss: 968.31412942. train_acc: 0.60685219.
Epoch99. val_loss: 1136.79557800. val_acc: 0.53973854.
Epoch99. test_loss: 1206.12725067. test_acc: 0.51870394.
```

Distance Threshold - 0.04

Testing Matching Accuracy: 99.22%

```
Epoch: 100 | LR: 0.00100000
Epoch100. train_loss: 1009.07587760. train_acc: 0.99395043.
Epoch100. val_loss: 1133.92077637. val_acc: 0.99304897.
Epoch100. test_loss: 1123.34017944. test_acc: 0.99229234.
```

With *train corrmask = 1*:

Testing Mask Accuracy: 75.84%
Rotation: [1.32 -0.18 -8.87]

```
Epoch: 99 | LR: 0.00100000
Average fitted rotation:  [ 1.33387494 -0.20368599 -8.82892445]
Average fitted rotation:  [ 1.32139042 -0.18484669 -8.87259441]
Epoch99. train_loss: 0.35940136. train_acc: 0.82788549.
Epoch99. val_loss: 0.42434163. val_acc: 0.79574734.
Epoch99. test_loss: 0.48404765. test_acc: 0.75842404.
```

Rotation on test data

3D-Rotation: [1.01 0.60 -8.72]

```
Evaluation only
Average fitted rotation:  [ 1.01040843  0.60820019 -8.72063908]
 test_loss: 0.50166227. test_acc: 0.74458289.
```