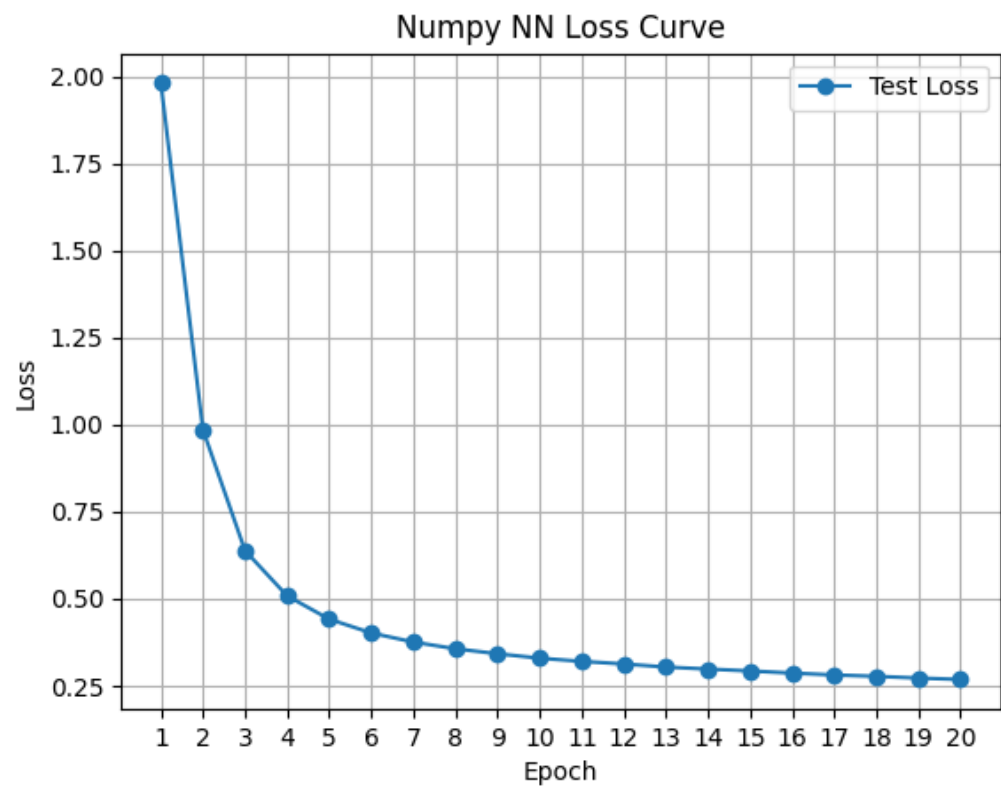
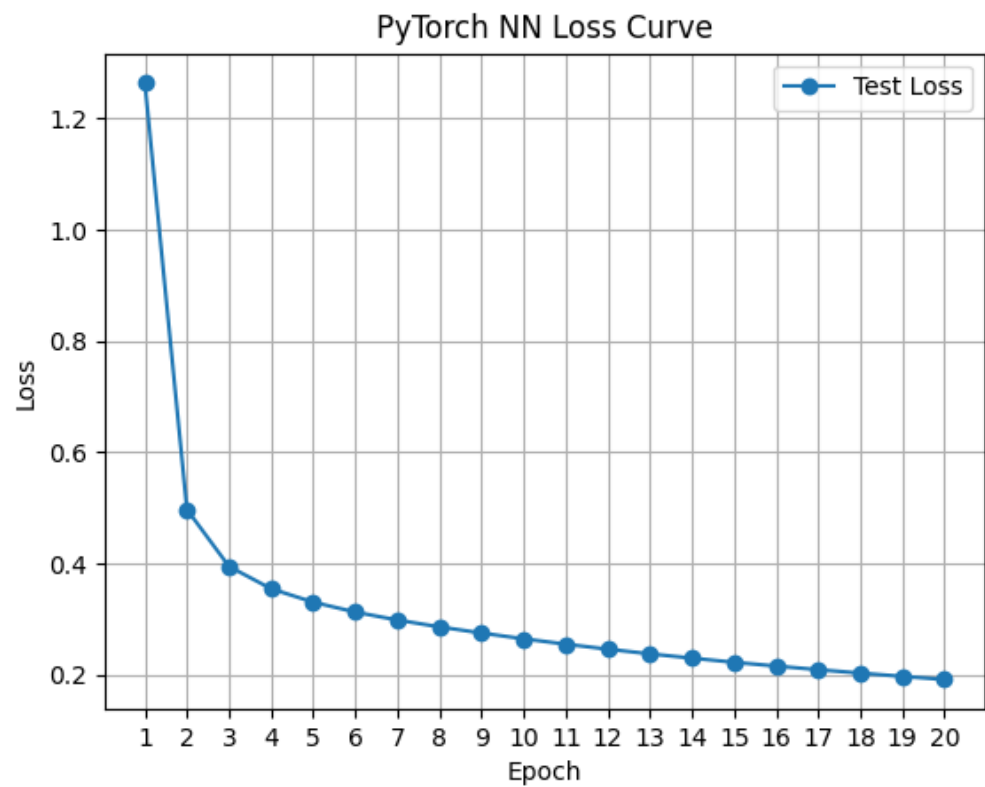


MNIST Neural Network Report

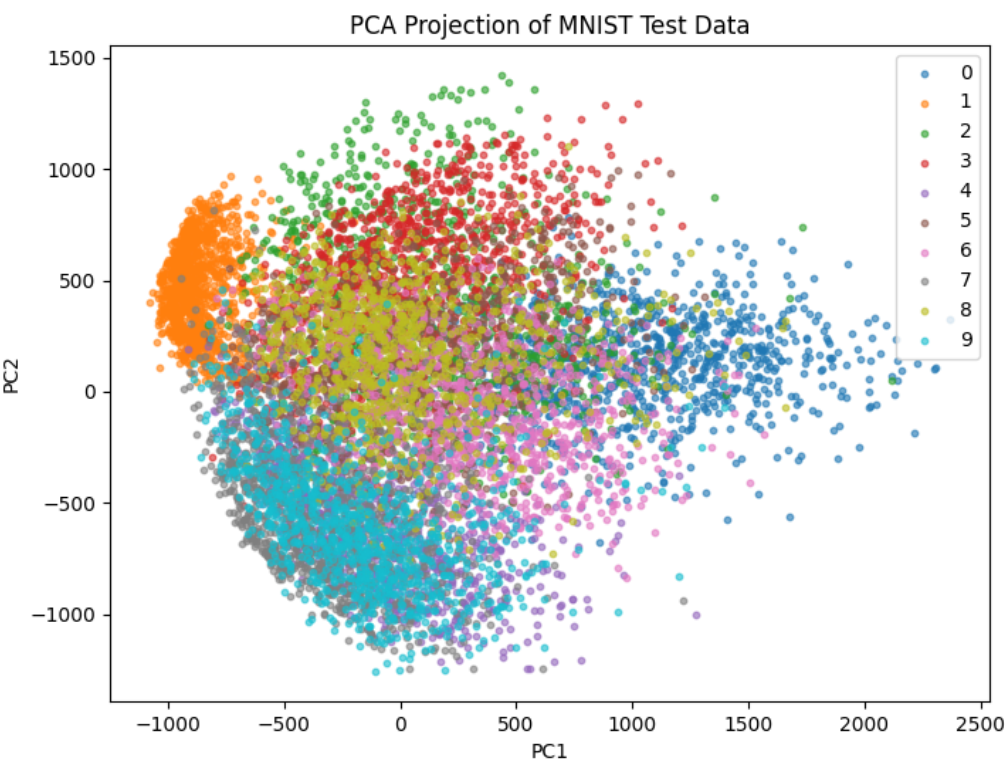
Numpy NN Loss Curve:



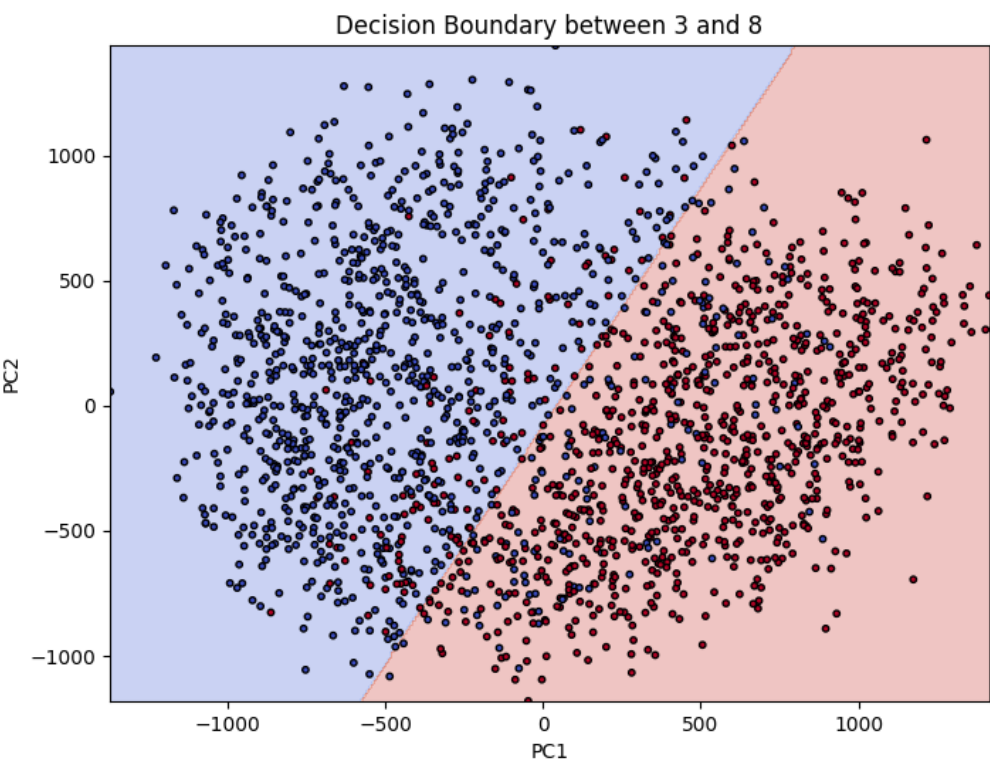
PyTorch NN Loss Curve:



PCA Plot:



Decision Boundary (3 vs 8):



Numpy NN Accuracy per Epoch:

0.577

0.7816

0.8401

0.8678

0.8843

0.8916

0.8967

0.9001

0.9043

0.9064

0.9089

0.9119

0.9133

0.9154

0.9169

0.9187

0.9214

0.9217

0.9238

0.9254

Pytorch NN Accuracy per Epoch:

0.8643

0.8920

0.9011

0.9082

0.9130
0.9176
0.9221
0.9236
0.9272
0.9285
0.9311
0.9340
0.9359
0.9366
0.9397
0.9398
0.9425
0.9428
0.9447
0.9476