

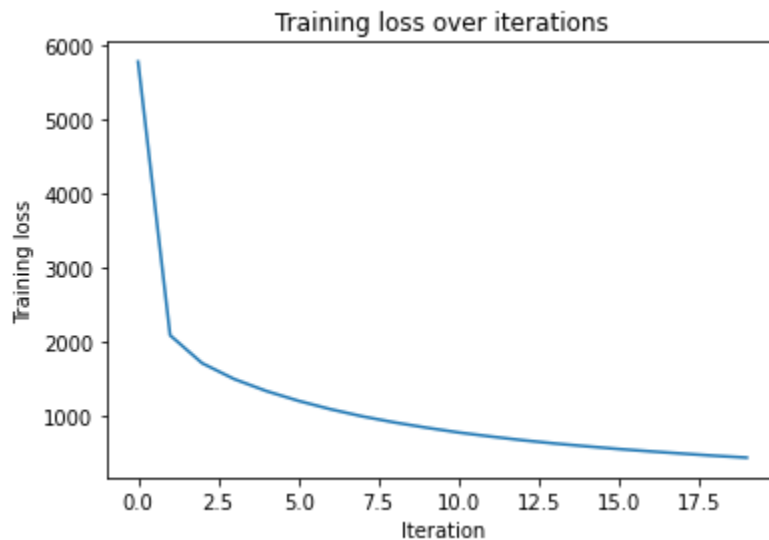
CS3390 - SET 6

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6.1) Deep learning

1) Neural Network

- Accuracy obtained = 97.27%



2) Gaussian SVM

Gamma: 0.1	C: 0.01	Accuracy = 0.1135
Gamma: 0.1	C: 0.1	Accuracy = 0.1135
Gamma: 0.1	C: 1	Accuracy = 0.2503
Gamma: 0.1	C: 10	Accuracy = 0.2472
Gamma: 0.1	C: 100	Accuracy = 0.2472
Gamma: 1	C: 0.01	Accuracy = 0.239
Gamma: 1	C: 0.1	Accuracy = 0.2494
Gamma: 1	C: 1	Accuracy = 0.1118
Gamma: 1	C: 10	Accuracy = 0.106
Gamma: 1	C: 100	Accuracy = 0.106
Gamma: 10	C: 0.01	Accuracy = 0.1019
Gamma: 10	C: 0.1	Accuracy = 0.0996
Gamma: 10	C: 1	Accuracy = 0.1009
Gamma: 10	C: 10	Accuracy = 0.1032
Gamma: 10	C: 100	Accuracy = 0.1032
Gamma: 30.86326789855957	C=0.01	Accuracy = 0.1009
Gamma: 30.86326789855957	C=0.1	Accuracy = 0.098
Gamma: 30.86326789855957	C=1	Accuracy = 0.1009
Gamma: 30.86326789855957	C=10	Accuracy = 0.1032
Gamma: 30.86326789855957	C=100	Accuracy = 0.1032

6.3) Clustering

1)

True Means =

```
[[ 9.34059678  0.94464498]  
 [ 9.4536872  4.29631987]  
 [ 3.95457649 -5.67821009]]
```

Predicted Means =

```
[[ 9.55893138  1.08592866]  
 [ 3.85499226 -5.63738469]  
 [ 9.47710134  4.65626015]]
```

True Covariance = [2.8561 4.84 3.0625]

Predicted Covariance = [2.74145607 2.64674306 4.61834973]

