

Homework 5

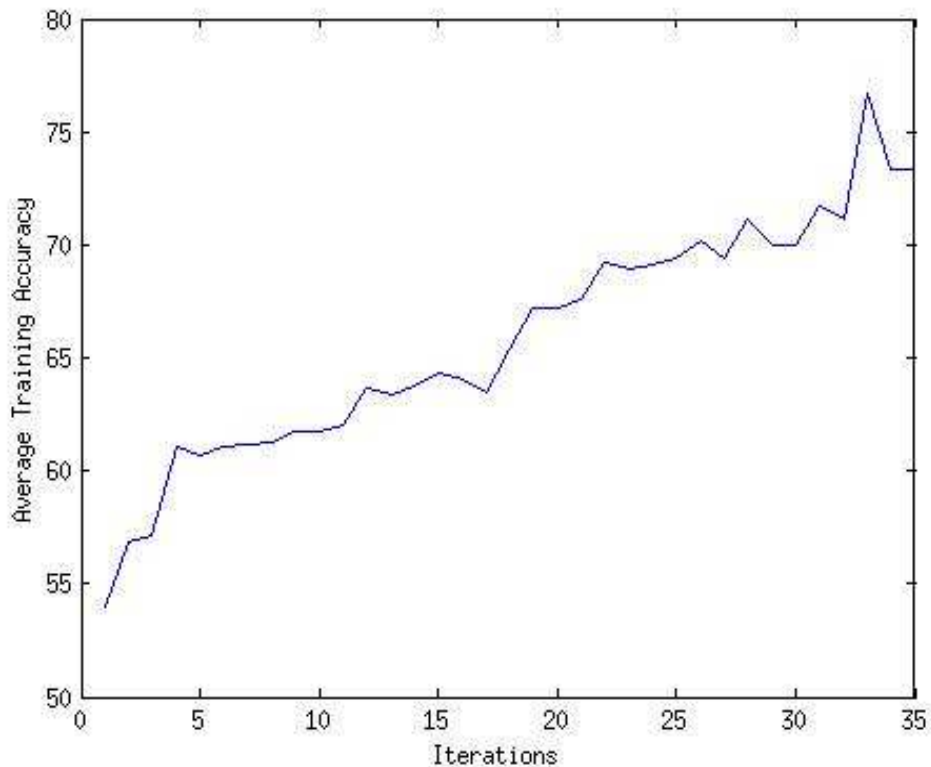
1. AdaBoost and its results:

Training Accuracy for each fold:

Fold 1 to 5	77.222	54.444	67.778	58.889	60.556
Fold 6 to 10	61.667	63.333	60.556	73.333	71.111

Average Training Accuracy across all folds: 64.889

Plot of training accuracies:



Test accuracy for each fold:

Fold 1 to 5	70	50	80	55	65
Fold 6 to 10	65	60	75	70	55

Average Accuracy: 64.50

Confusion matrix for each fold:

Fold 1 to 5	6 5 1 8	10 0 10 0	8 2 2 8	9 2 7 2	9 2 5 4
Fold 6 to 10	9 2 5 4	8 3 5 4	10 1 4 5	9 2 4 5	9 2 7 2

Average of confusion matrix:

8.7 2.1

5.0 4.2

Precision (One) for each fold:

Fold 1 to 5	0.8571	0.5	0.8	0.5625	0.6429
Fold 6 to 10	0.6429	0.6154	0.7143	0.6923	0.5625

Recall (One) for each fold:

Fold 1 to 5	0.5455	1	0.8	0.8182	0.8182
Fold 6 to 10	0.8182	0.7273	0.9091	0.8182	0.8182

Average precision (one): 0.65898

Average recall (one): 0.80727

Precision (Minus One) for each fold:

Fold 1 to 5	0.6154	0	0.8	0.5	0.6667
Fold 6 to 10	0.6667	0.5714	0.8333	0.7143	0.5000

Recall (Minus One) for each fold:

Fold 1 to 5	0.8889	0	0.8	0.2222	0.4444
Fold 6 to 10	0.4444	0.4444	0.5556	0.5556	0.2222

Average precision (Minus one): 0.58677

Average recall (Minus one): 0.45778

2. Observation for TrAda Boost Algorithm:

Table showing accuracy for different folds and their mean and standard deviation.

Percentage/ Fold Number	1	2	3	4	5	6	7	8	9	10	Mean	Standard Deviation
1 %	65.48	64.78	71.66	68.17	69.46	73.06	84.83	78.81	86.50	81.34	74.41	7.94
5 %	86.78	80.09	90.28	87.93	82.60	85.48	93.09	85.65	85.18	90.04	86.68	3.86
10 %	90.71	87.35	90.84	93.61	85.44	87.41	91.17	90.64	88.86	91.37	89.74	2.42
20 %	92.79	92.79	91.56	92.97	92.35	92.00	93.40	93.23	93.67	94.02	92.88	0.75