CSE 6363 Machine Learning

Project II

*Submitted by*

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**1) BAGGING**

a) Bagging is implemented, and the code is available in the codes folder.

b) Single Classifier testing error: 0.0833

|  |  |  |
| --- | --- | --- |
| Number of times | Train error | Test error |
| 10 | 0.0125 | 0.1167 |
| 50 | 0.0125 | 0.133 |
| 100 | 0.015 | 0.133 |

From the above results, we can infer that the train and test error for applying bagging 10, 50 and 100 times for the given data set yields 0.0125, 0.0125, 0.015 and 0.1167,0.133,0.133 respectively. However, on running the single classifier for the given data set the testing error obtained was 0.0833.

**2) BOOSTING**

a) Boosting is implemented, and the code is available in the codes folder.

b) Single Classifier testing error: 0.0833

|  |  |  |
| --- | --- | --- |
| Number of times | Train error | Test error |
| 10 | 0.015 | 0.133 |
| 50 | 0.015 | 0.133 |
| 100 | 0.015 | 0.133 |

From the above results, we can infer that the train and test error for applying bagging 10, 50 and 100 times for the given data set yields 0.015, 0.015, 0.015 and 0.133,0.133,0.133 respectively. However, on running the single classifier for the given data set the testing error obtained was 0.0833.