CSE472 (Machine Learning Sessional)

L-4, T-2, January 2018 Term

Report on Assignment 1: Ensemble Learning

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We ran the program with k = 5, 10, and 20. For each value of k, we varied the number of boosting with values 1, 5, 10, 20, and 30. We used F1 score as the performance metric.

We found the following result.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **K**\**Boost** | 1 | 5 | 10 | 20 | 30 |
|  | 5 | 0.6324 | 0.7741 | 0.8212 | 0.8108 | 0.8345 |
|  | 10 | 0.6253 | 0.7695 | 0.8208 | 0.8294 | 0.8345 |
|  | 20 | 0.6392 | 0.7204 | 0.7968 | 0.8330 | 0.8312 |

Table 1: F1 score for different values of k and boosting

We observe that the value of k has little relation with the performance of our hypothesis. Whereas increasing the number of boosting improves the performance significantly.