|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Models** | **Test Accuracy** | **Regularization** | **Overfitting Gap**  **(Train\_score – validation score)** | **Time (sec)** |
| Baseline NN **(Wania)** | 87.1% | Dropout (30%, 50%) | -2.0% | 28.19 |
| Baseline NN **(Wania)** | 85.9% | L2 Regularization (0.001) | 2.1% | 22.41 |
| Baseline NN + PCA **(Emaan)** |  |  |  |  |
| Logistic Regression **(Emaan)** |  |  |  |  |
| Logistic Regression + PCA **(Emaan)** |  |  |  |  |
| SVM (RBF) **(Wania)** | 84.5% | C = 0.1 | 0.37% | 315.01 |
| SVM (RBF) **(Wania)** | 90.4% | C = 10 | 6.9% | 157.11 |
| SVM (RBF) + PCA **(Wania)** | 85.3% | C = 0.1 | 0.5% | 147.97 |
| SVM (RBF) + PCA **(Wania)** | 90.7% | C = 10 | 6.5% | 84.14 |
| Random Forest **(Emaan)** |  |  |  |  |
| Random Forest + PCA **(Emaan)** |  |  |  |  |
| Gradient Boosting **(Wania)** |  |  |  |  |
| Gradient Boosting + PCA **(Wania)** |  |  |  |  |
| Linear Regression **(Emaan)** |  |  |  |  |
| Linear Regression + PCA **(Emaan)** |  |  |  |  |
| Polynomial Regression **(Wania)** |  |  |  |  |
| Polynomial Regression + PCA **(Wania)** |  |  |  |  |