**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 10-folds Cross Validation Score \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Classifier** | **Acc (%)** | **MCC** | **Precision** | **Roc AUC score** | **F1 score** | **Sensitivity** | **Specificity** |
| **AdaBoost** | 97.742 | 0.955 | 0.977 | 0.978 | 0.977 | 0.978 | 0.977 |
| **BernoulliNB** | 86.685 | 0.743 | 0.820 | 0.866 | 0.877 | 0.944 | 0.787 |
| **DT** | 91.141 | 0.824 | 0.916 | 0.911 | 0.912 | 0.908 | 0.915 |
| **Gradient Boosting** | 96.106 | 0.923 | 0.973 | 0.961 | 0.960 | 0.949 | 0.973 |
| **GNB** | 74.609 | 0.513 | 0.843 | 0.747 | 0.706 | 0.609 | 0.884 |
| **SVM (linear)** | 96.839 | 0.936 | 0.972 | 0.968 | 0.968 | 0.965 | 0.971 |
| **SVM (poly)** | 98.137 | 0.963 | 0.987 | 0.981 | 0.981 | 0.976 | 0.986 |
| **SVM (rbf)** | 50.169 | 0.0 | 0.403 | 0.5 | 0.536 | 0.80 | 0.20 |
| **LR** | 97.347 | 0.947 | 0.976 | 0.973 | 0.974 | 0.970 | 0.976 |
| **MLP** | 97.009 | 0.941 | 0.975 | 0.970 | 0.970 | 0.965 | 0.974 |
| **RF** | 90.464 | 0.816 | 0.866 | 0.904 | 0.911 | 0.962 | 0.847 |
| **Voting\_svm\_model** | 97.686 | 0.954 | 0.974 | 0.977 | 0.977 | 0.981 | 0.973 |

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Independent Test Score \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Classifier** | **Acc (%)** | **MCC** | **Precision** | **Roc AUC score** | **F1 score** | **Sensitivity** | **Specificity** |
| **AdaBoost** | 98.426 | 0.969 | 1.0 | 0.984 | 0.984 | 0.968 | 1.0 |
| **BernoulliNB** | 89.213 | 0.789 | 0.855 | 0.892 | 0.898 | 0.946 | 0.837 |
| **DT** | 93.034 | 0.861 | 0.949 | 0.930 | 0.929 | 0.910 | 0.950 |
| **Gradient Boosting** | 96.179 | 0.924 | 0.968 | 0.961 | 0.962 | 0.955 | 0.968 |
| **GNB** | 73.483 | 0.497 | 0.849 | 0.736 | 0.686 | 0.576 | 0.895 |
| **SVM (linear)** | 97.978 | 0.959 | 0.982 | 0.979 | 0.979 | 0.977 | 0.982 |
| **SVM (poly)** | 98.876 | 0.978 | 1.0 | 0.989 | 0.989 | 0.978 | 1.0 |
| **SVM (rbf)** | 50.337 | 0.0 | 0.503 | 0.5 | 0.669 | 1.0 | 0.0 |
| **LR** | 97.978 | 0.958 | 0.990 | 0.979 | 0.979 | 0.969 | 0.990 |
| **MLP** | 97.528 | 0.951 | 0.995 | 0.975 | 0.974 | 0.955 | 0.995 |
| **RF** | 91.461 | 0.832 | 0.884 | 0.914 | 0.918 | 0.955 | 0.873 |
| **Voting\_svm\_model** | 98.876 | 0.978 | 0.982 | 0.989 | 0.988 | 0.996 | 0.982 |