**Task 10 : Benchmark Top ML Algorithms**

TABLE 1. (Algorithm wise best model with best hyperparameter)

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| **Algorithm** | **Accuracy** | **Hyperparameters** |
| DT | 0.789 | {'criterion': 'entropy', 'max\_depth': 4} |
| KNN | 0.670 | {'metric': 'manhattan', 'n\_neighbors': 19, 'weights': 'uniform'} |
| LR | 0.789 | {'C': 10.0, 'penalty': 'l2'} |
| SVM | 0.783 | {'C': 10, 'kernel': 'linear'} |
| RF | 0.795 | {'criterion': 'gini', 'max\_depth': 4, 'max\_features': 'log2', 'n\_estimators': 30} |

TABLE 2. (Best overall)

|  |  |  |
| --- | --- | --- |
| **Algorithm** | **Accuracy** | **Hyperparameters** |
| RF | 0.795 | {'criterion': 'gini', 'max\_depth': 4, 'max\_features': 'log2', 'n\_estimators': 30} |