**Task 10: Benchmark Top ML Algorithms**

Algorithm wise best model with best hyperparameter

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| **Algorithm** | **Accuracy** | **Hyperparameters** |
| **Decision Tree** | 78.91% | criterion="gini",  max\_depth= 1 |
| **KNN** | 64.32% | n\_neighbors = 15,  weights = 'uniform',  metric = 'minkowski' |
| **Logistic Regression** | 67.56% | C=0.009,  penalty='l2' |
| **SVC** | 68.64% | C=1,  gamma=0.001,  kernel='rbf' |
| **Random Forest** | 78.91% | n\_estimators=100,  max\_features='auto',  max\_depth=60,  min\_samples\_leaf=2,  min\_samples\_split=10,  criterion= 'gini' |

Best Overall after GridSearchCV

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| **Algorithm** | **Accuracy** | **Hyperparameters** |
| **Decision Tree** | 78.91% | criterion="gini",  max\_depth= 1 |
| **Random Forest** | 78.91% | n\_estimators=100,  max\_features='auto',  max\_depth=60,  min\_samples\_leaf=2,  min\_samples\_split=10,  criterion= 'gini' |

Random Forest & Decision Tree gives similar Accuracy Score after performing Grid Search on the models.