# Final Model Comparison Report

A total of 2 models were compared.

## Model Accuracies

|  |  |
| --- | --- |
| Model | Accuracy |
| random\_forest | 0.7195 |
| SVM | 0.7047 |

## Best Model: random\_forest

Model Evaluation Results  
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Accuracy: 0.7195  
F1 Score: 0.7195  
ROC AUC: 0.7979927148725103  
  
Model Parameters:  
memory: None  
steps: [('selectfrommodel', SelectFromModel(estimator=ExtraTreesClassifier(n\_estimators=50),  
 max\_features=50)), ('standardscaler', StandardScaler()), ('randomforestclassifier', RandomForestClassifier(max\_depth=50, max\_features='log2', n\_estimators=500))]  
verbose: False  
selectfrommodel: SelectFromModel(estimator=ExtraTreesClassifier(n\_estimators=50),  
 max\_features=50)  
standardscaler: StandardScaler()  
randomforestclassifier: RandomForestClassifier(max\_depth=50, max\_features='log2', n\_estimators=500)  
selectfrommodel\_\_estimator\_\_bootstrap: False  
selectfrommodel\_\_estimator\_\_ccp\_alpha: 0.0  
selectfrommodel\_\_estimator\_\_class\_weight: None  
selectfrommodel\_\_estimator\_\_criterion: gini  
selectfrommodel\_\_estimator\_\_max\_depth: None  
selectfrommodel\_\_estimator\_\_max\_features: sqrt  
selectfrommodel\_\_estimator\_\_max\_leaf\_nodes: None  
selectfrommodel\_\_estimator\_\_max\_samples: None  
selectfrommodel\_\_estimator\_\_min\_impurity\_decrease: 0.0  
selectfrommodel\_\_estimator\_\_min\_samples\_leaf: 1  
selectfrommodel\_\_estimator\_\_min\_samples\_split: 2  
selectfrommodel\_\_estimator\_\_min\_weight\_fraction\_leaf: 0.0  
selectfrommodel\_\_estimator\_\_monotonic\_cst: None  
selectfrommodel\_\_estimator\_\_n\_estimators: 50  
selectfrommodel\_\_estimator\_\_n\_jobs: None  
selectfrommodel\_\_estimator\_\_oob\_score: False  
selectfrommodel\_\_estimator\_\_random\_state: None  
selectfrommodel\_\_estimator\_\_verbose: 0  
selectfrommodel\_\_estimator\_\_warm\_start: False  
selectfrommodel\_\_estimator: ExtraTreesClassifier(n\_estimators=50)  
selectfrommodel\_\_importance\_getter: auto  
selectfrommodel\_\_max\_features: 50  
selectfrommodel\_\_norm\_order: 1  
selectfrommodel\_\_prefit: False  
selectfrommodel\_\_threshold: None  
standardscaler\_\_copy: True  
standardscaler\_\_with\_mean: True  
standardscaler\_\_with\_std: True  
randomforestclassifier\_\_bootstrap: True  
randomforestclassifier\_\_ccp\_alpha: 0.0  
randomforestclassifier\_\_class\_weight: None  
randomforestclassifier\_\_criterion: gini  
randomforestclassifier\_\_max\_depth: 50  
randomforestclassifier\_\_max\_features: log2  
randomforestclassifier\_\_max\_leaf\_nodes: None  
randomforestclassifier\_\_max\_samples: None  
randomforestclassifier\_\_min\_impurity\_decrease: 0.0  
randomforestclassifier\_\_min\_samples\_leaf: 1  
randomforestclassifier\_\_min\_samples\_split: 2  
randomforestclassifier\_\_min\_weight\_fraction\_leaf: 0.0  
randomforestclassifier\_\_monotonic\_cst: None  
randomforestclassifier\_\_n\_estimators: 500  
randomforestclassifier\_\_n\_jobs: None  
randomforestclassifier\_\_oob\_score: False  
randomforestclassifier\_\_random\_state: None  
randomforestclassifier\_\_verbose: 0  
randomforestclassifier\_\_warm\_start: False

### ROC Curve

