

## Capstone 2 Model Description and Performance

### Model Description

**Model Type:** Random Forest Classifier

**Optimized Model Parameters:**

n_estimators=20,	# Number of trees in the forest
max_depth=4,	# Maximum depth of the tree nodes
min_samples_split=3,	# Minimum number of samples required to split an internal node
max_features='log2'	

### Model Performance

**Performance on Validation Dataset:**

Confusion Matrix =  $\begin{bmatrix} 241 & 41 \\ 225 & 37 \end{bmatrix}$

Precision = 0.47

Recall = 0.14

AUC/ROC = 0.50

