Metric Report

Final Model Features

'age',
'admission_type_id'
'admission_source_id',
'time_in_hospital',
'num_lab_procedures',
'num_procedures',
'num_medications',
'number_outpatient',
'number_emergency',
'number_inpatient',
'diag_1',
'diag_2',
'diag_3',
'number_diagnoses',
'change',
'diabetesMed',

Parameters

For logistic regression I tuned the hyper parameter of "max iterations." For tuning the model, I found the value of 100 to be optimal with a train_score = 0.498. For the random forest model, I found the n_estimator value of 100 to be optimal with a train_score of 1.0.

Performance Metrics

Logistic Regression

	precision	recall	f1-score	support
0	0.98	0.99	0.99	29607
1	0.99	0.98	0.99	30000
accuracy			0.99	59607
macro avg	0.99	0.99	0.99	59607
weighted avg	0.99	0.99	0.99	59607
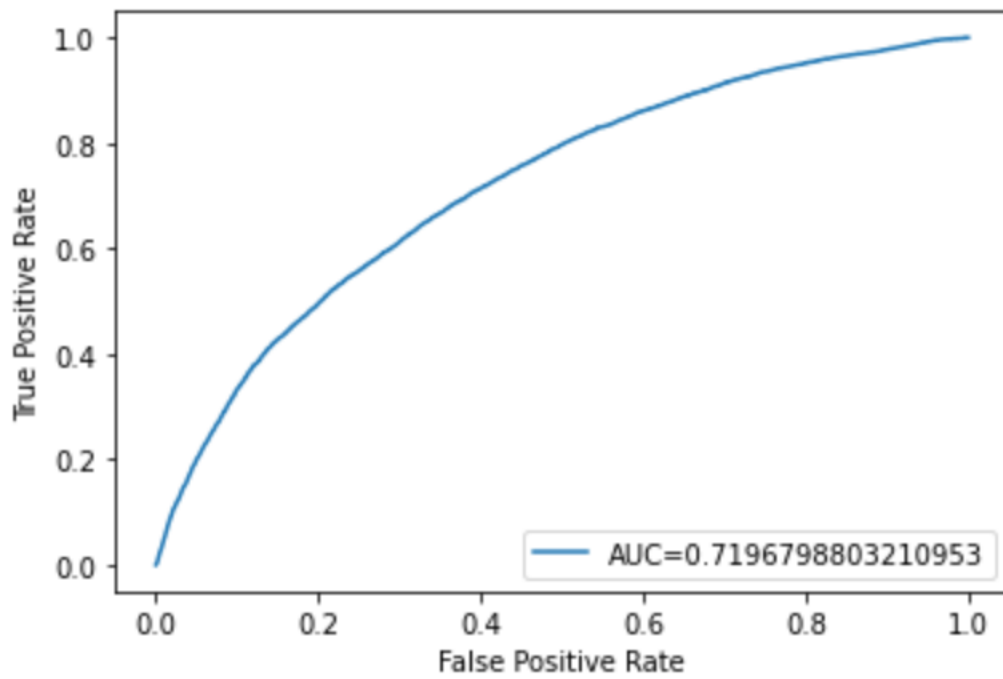
Random Forest

	precision	recall	f1-score	support
0	0.98	0.98	0.98	29607
1	0.98	0.98	0.98	30000
accuracy			0.98	59607
macro avg	0.98	0.98	0.98	59607
weighted avg	0.98	0.98	0.98	59607