CUSTOMER CHURN

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INTRODUCTION

- WHAT IS IT?
- WHY DOES IT MATTER?
- WHAT ARE WE GOING TO DO?

CUSTOMER CHURN

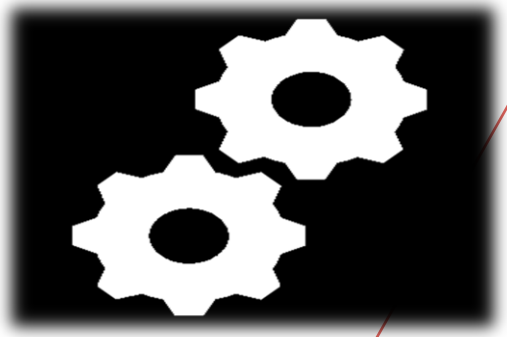
Customer churn refers to the process of identifying customer/ clients who will terminate their relations with an organisation. It is very important aspect of an organisation as it helps to measure the growth of the company.

Hence, The purpose of this project is to build a model to predict if a given customer will churn or not churn using various classification algorithms and techniques .

PROCEDURE

GET OUR DATA

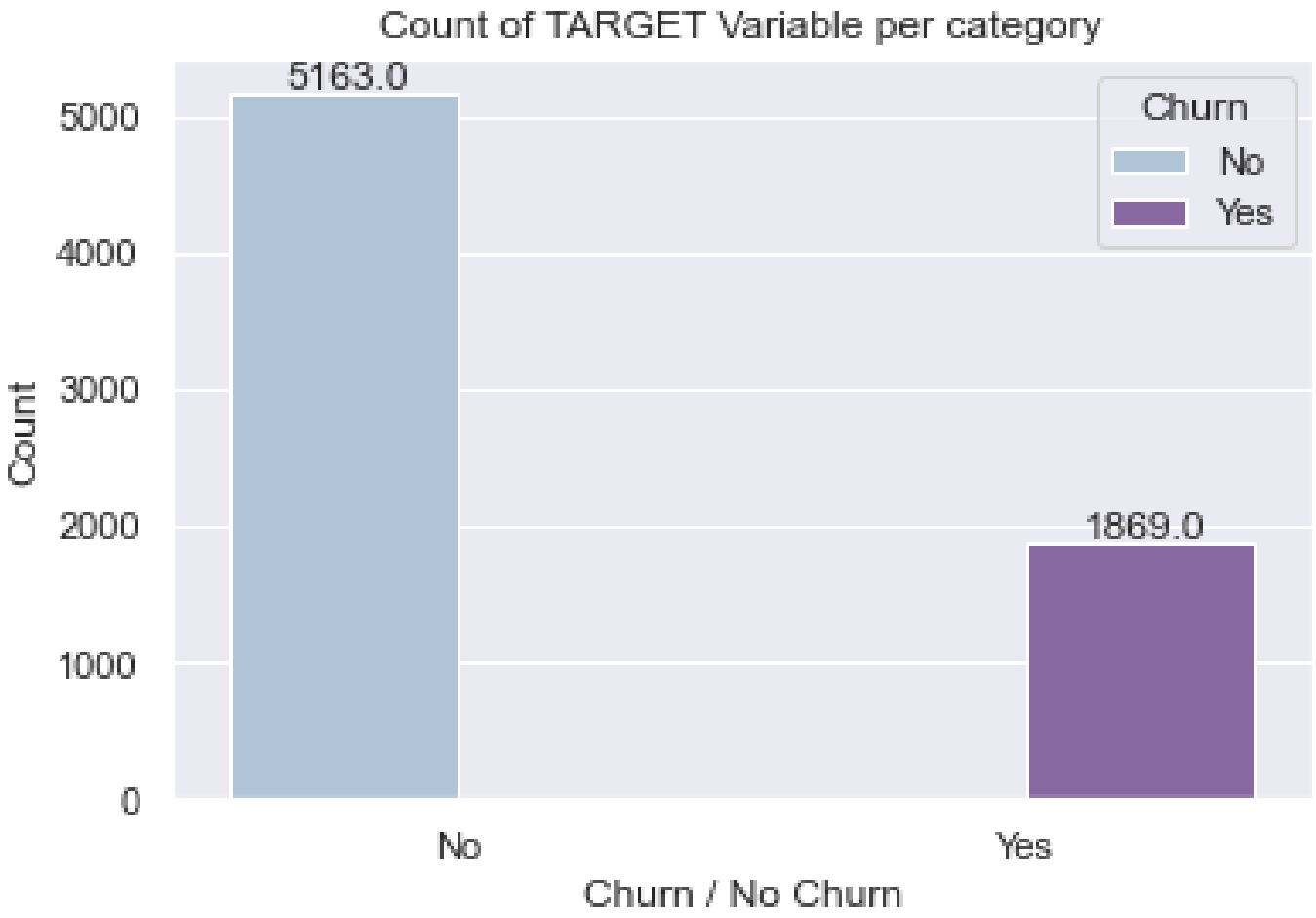
EXPLORE THE DATA



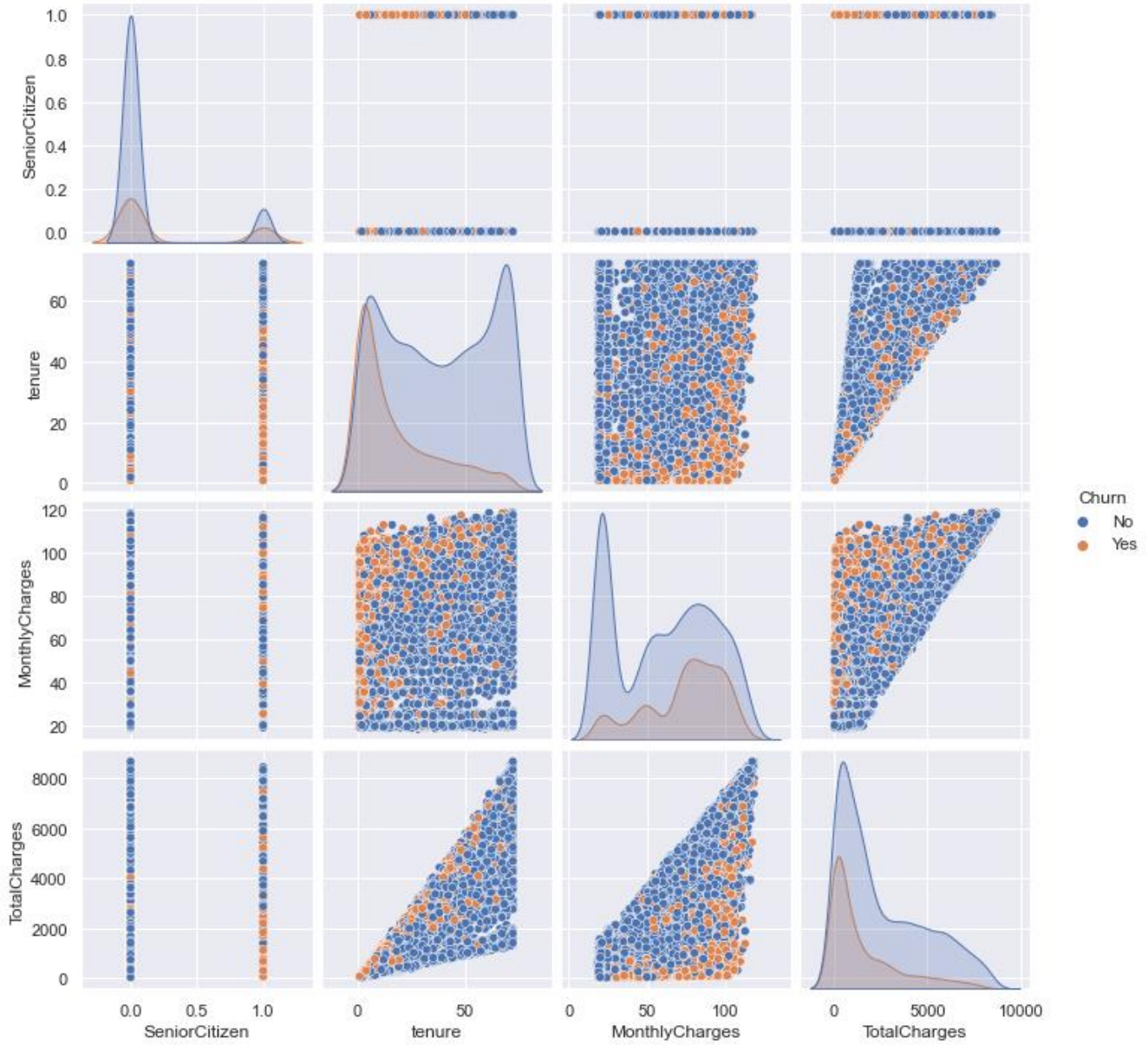
BUILD A MODEL

DATA

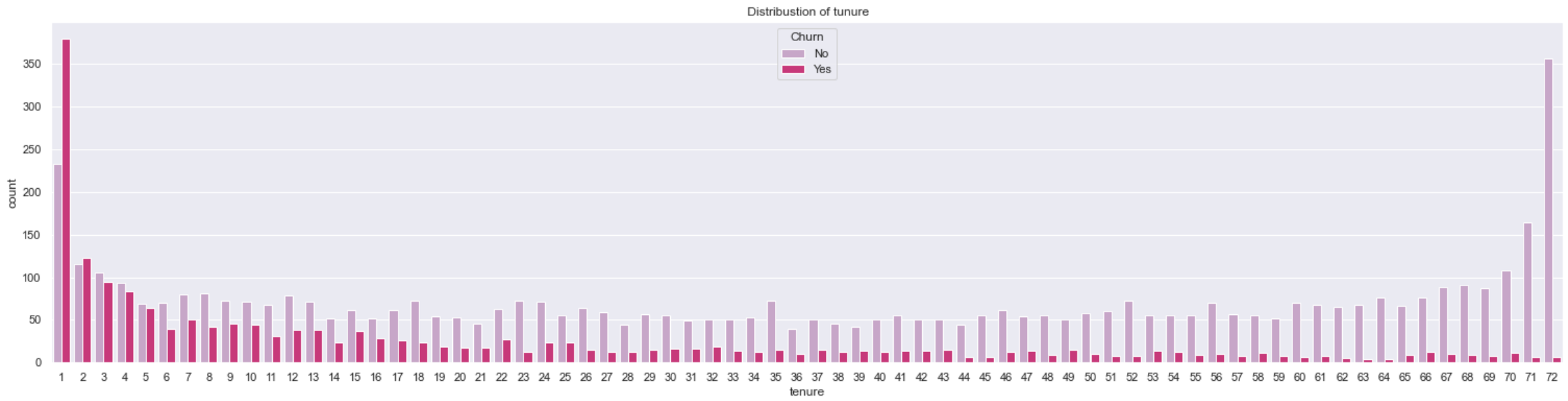
- The data for this project will be obtained from [IBM Sample Data Sets]
- Data will contain about 7,000 rows
- One individual row in the data singifies one unique observation of a customer's behavior (features)
- Customers who have left in the past– the column is called Churn.



EXPLORE THE DATA

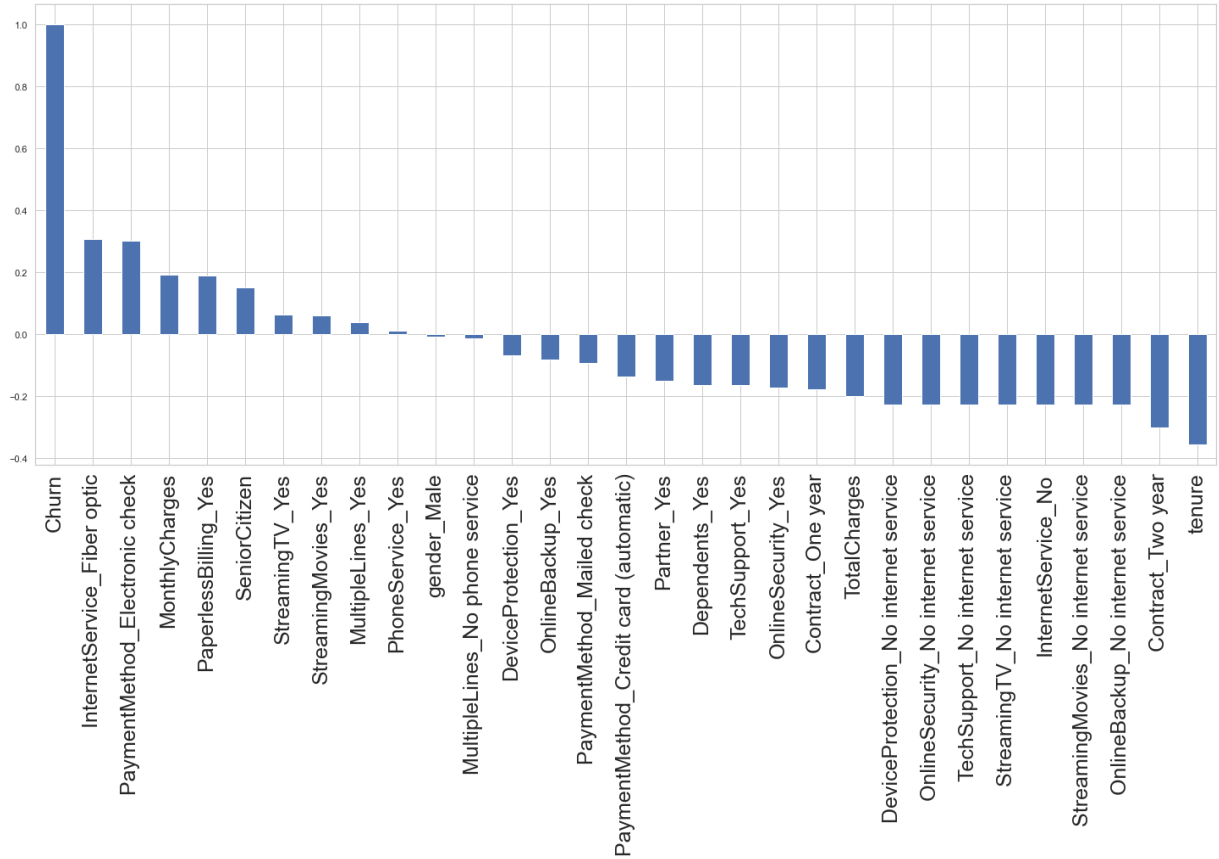


DON'T BE TRICKED


Distribustion of tunure
Churn
No
Yes
count
0
50
100
150
200
250
300
350
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72
tenure

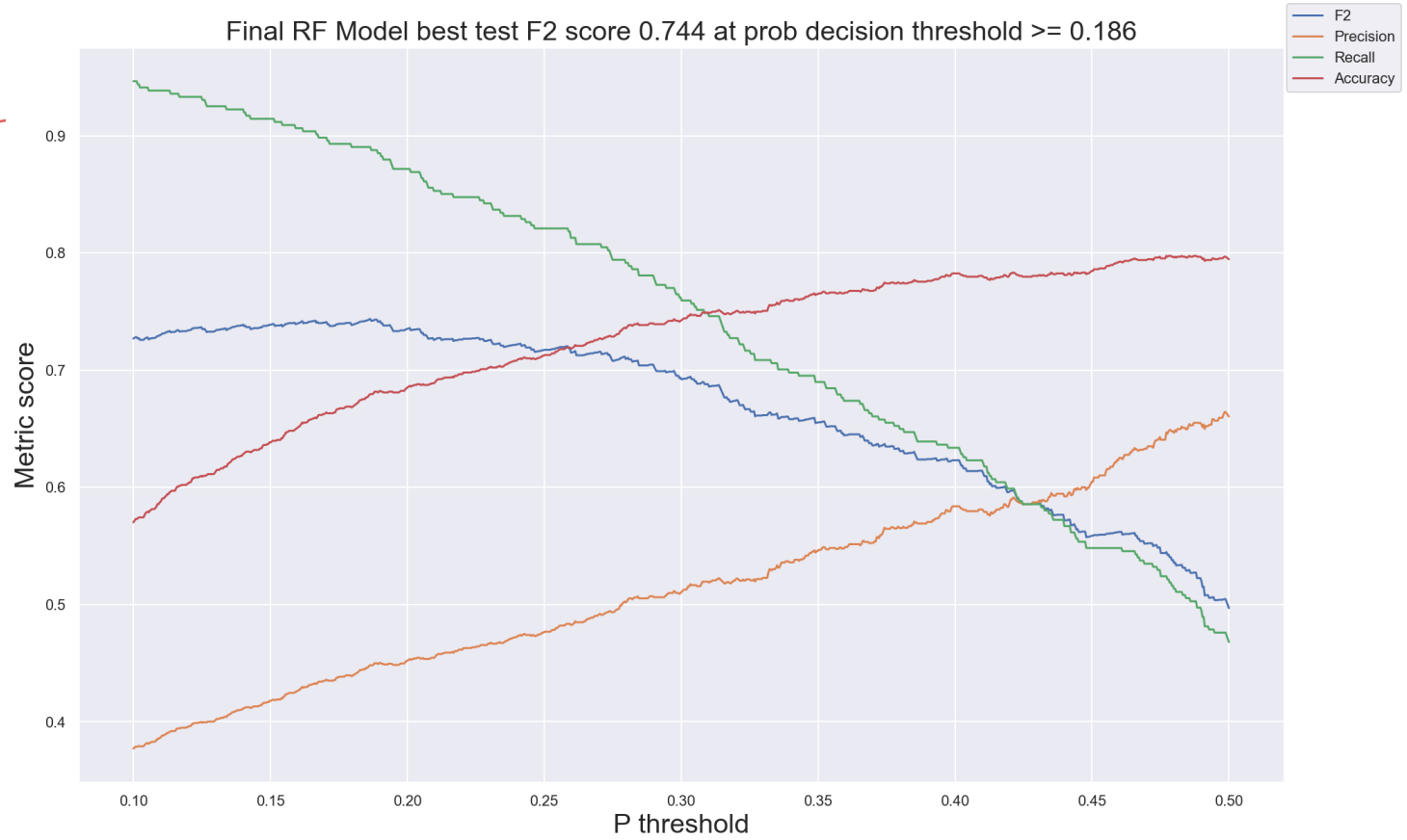
TENURE

BEFORE MODELING



COMPARE

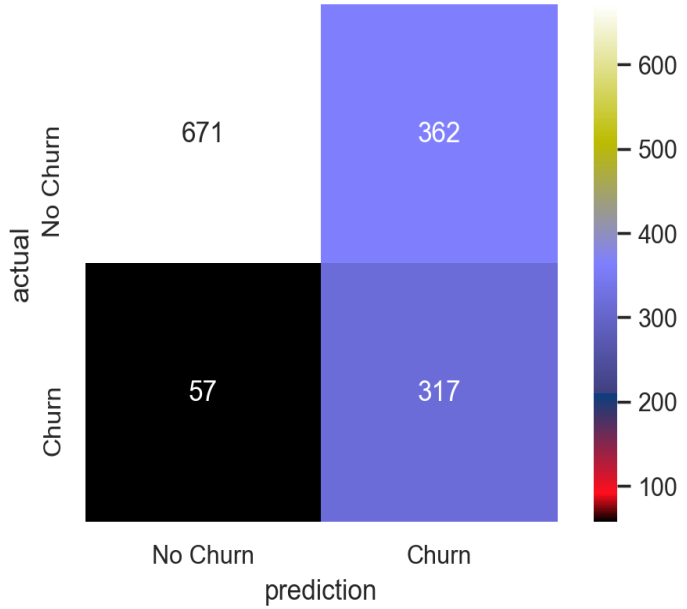
Model	Base	Class Imbalance Technique , CV, GS - Val	Test
Logistic Regression (CV)	F2_Score:0.555 Recall:.534	F2: 0.770 Threshold = 0.196	
KNN	F2 Score: 4.84		
Decision Tree	F2 score: 0.539 Recall:0.5320	F2 score 0.757 Threshold >= 0.200	F2 Score: 0.710 Threshold >= 0.100
Random Forest	F2 score: 0.535 Recall: 0.506	F2 Score: 0.770 Threshold >= 0.176	F2_Score: 0.745 Threshold >= 0.179



Random Forest	F2 score: 0.535 Recall: 0.506	F2 Score: 0.770 Threshold >= 0.176	F2_Score: 0.745 Threshold >= 0.179

RANDOM FOREST

- *COMBINE VAL AND TEST*
- *FIT*
- *RESULTS:*



* *THANK YOU* *