

A white iPhone and a pair of white AirPods are positioned diagonally across the background. The iPhone is on the right, showing its back with the camera lens and Apple logo. The AirPods are on the left, with one labeled 'R' and the other 'L'.

SyriaTel Churn Prediction

B Y H u d a K a s s o u m e h

Business Problem



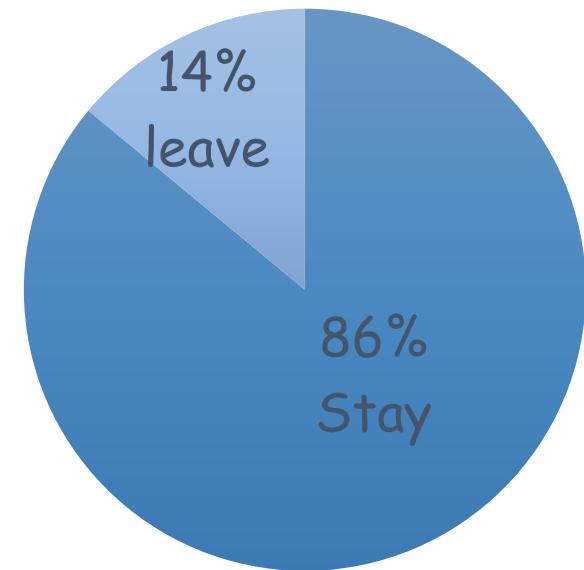
- Syriatel telecommunication company hired a data scientist to build a classifier that can predict which customers will stop dealing with them for another provider and identify how the company can avoid the loss of those customers.

The Data

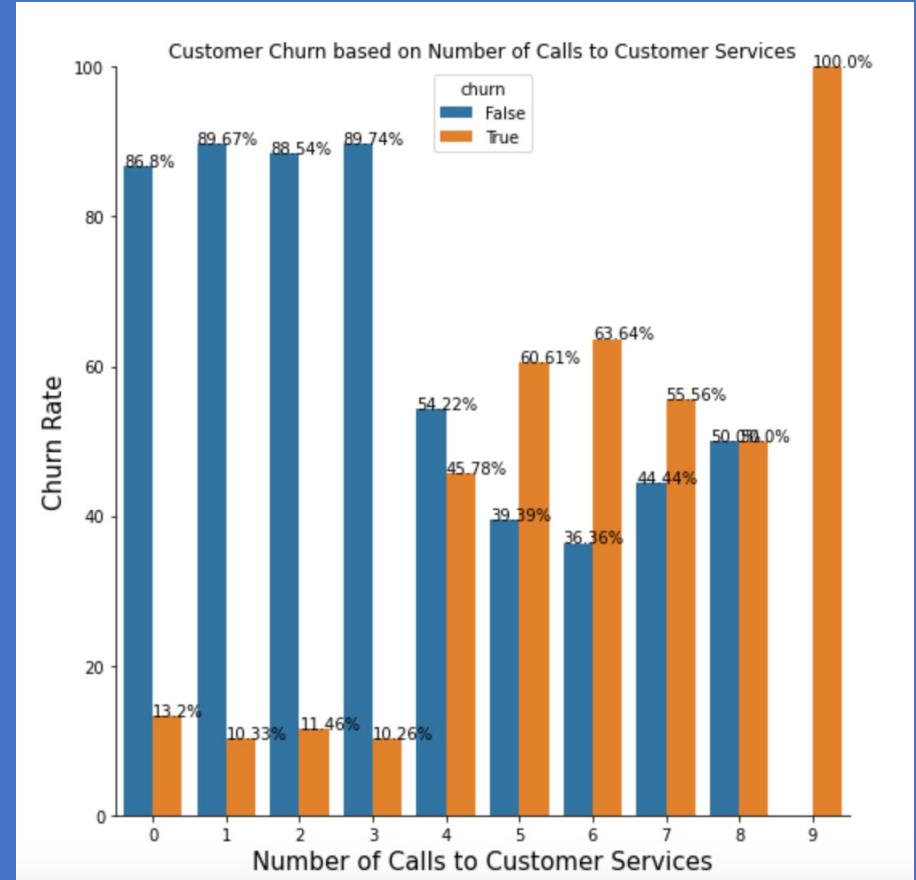
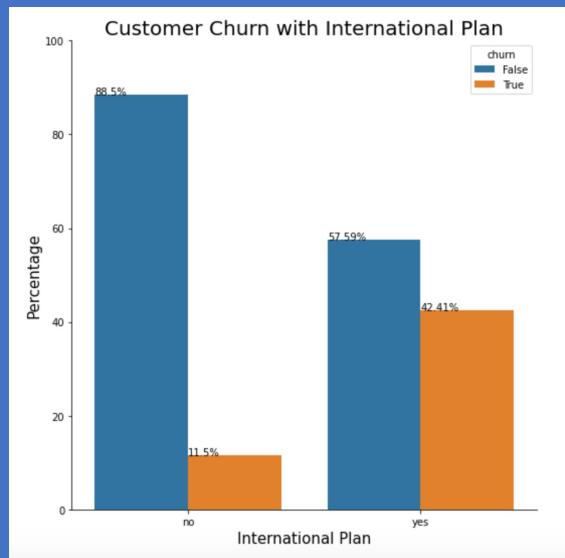
Kaggle

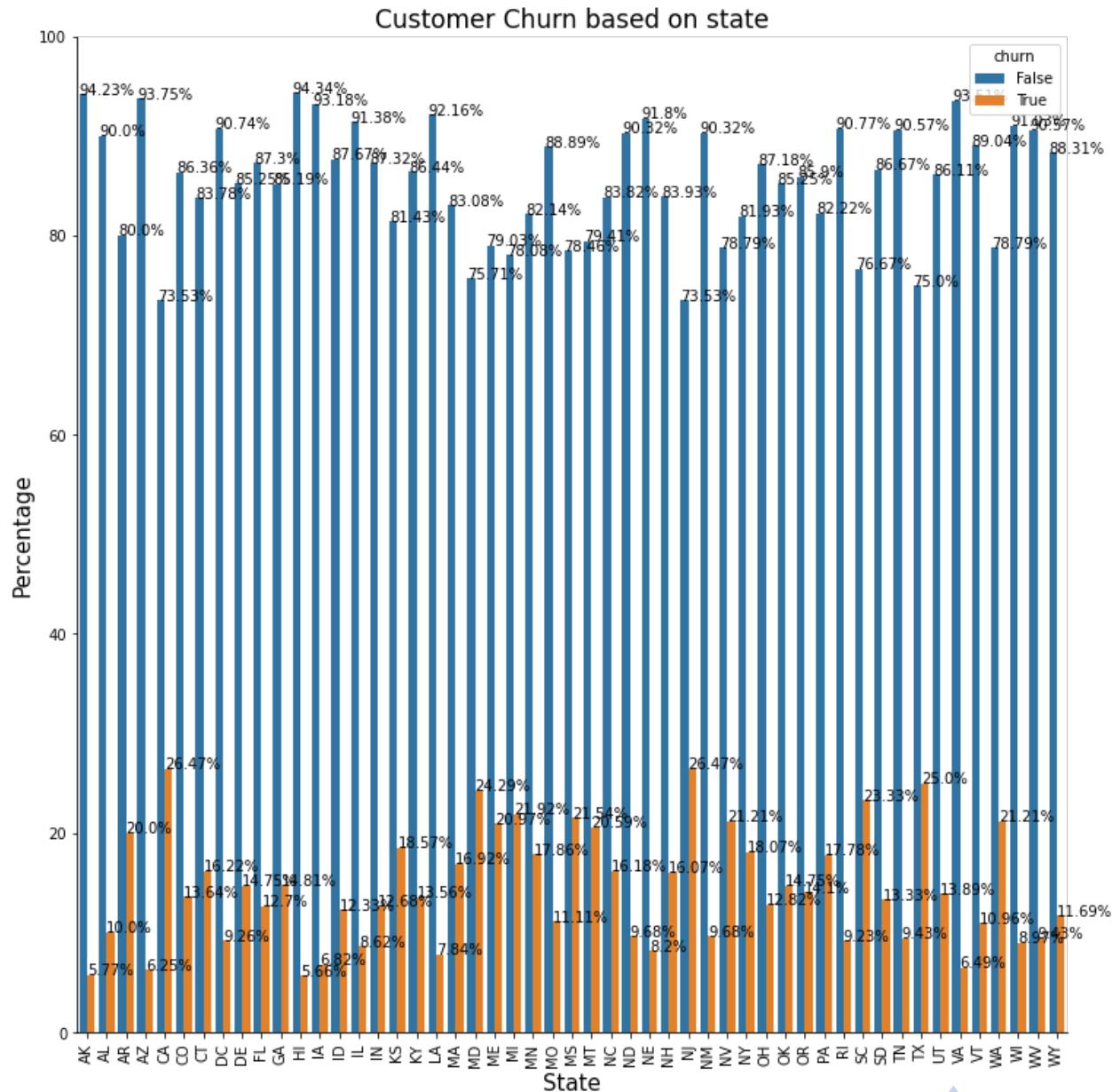
3333 rows,
21 columns

Imbalance
Target



Observation







Models

- **Logistic Regression**
- **KNN**
- **Decision Tree**
- **Random Forest**
- **Ada Boost**
- **Gradient Boosting**

XGBoost Model

100%

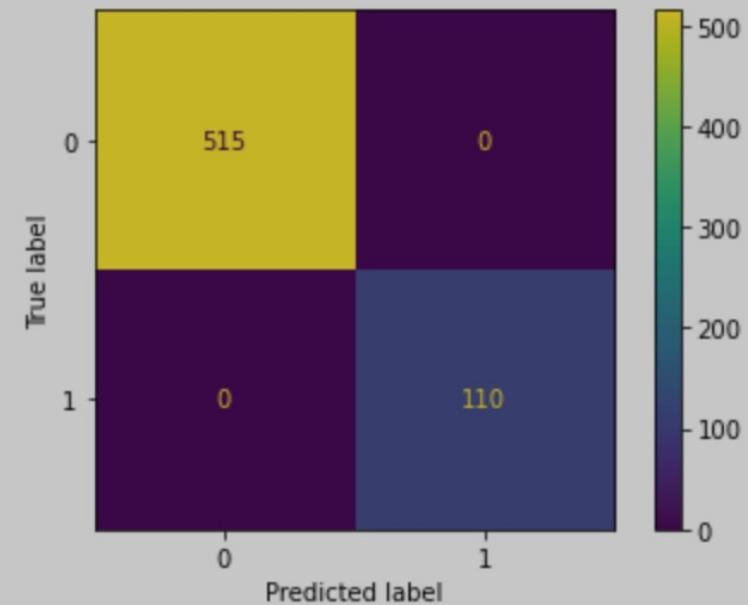
- Recall
- Precision
- Accuracy
- F1 Score

Train Scores

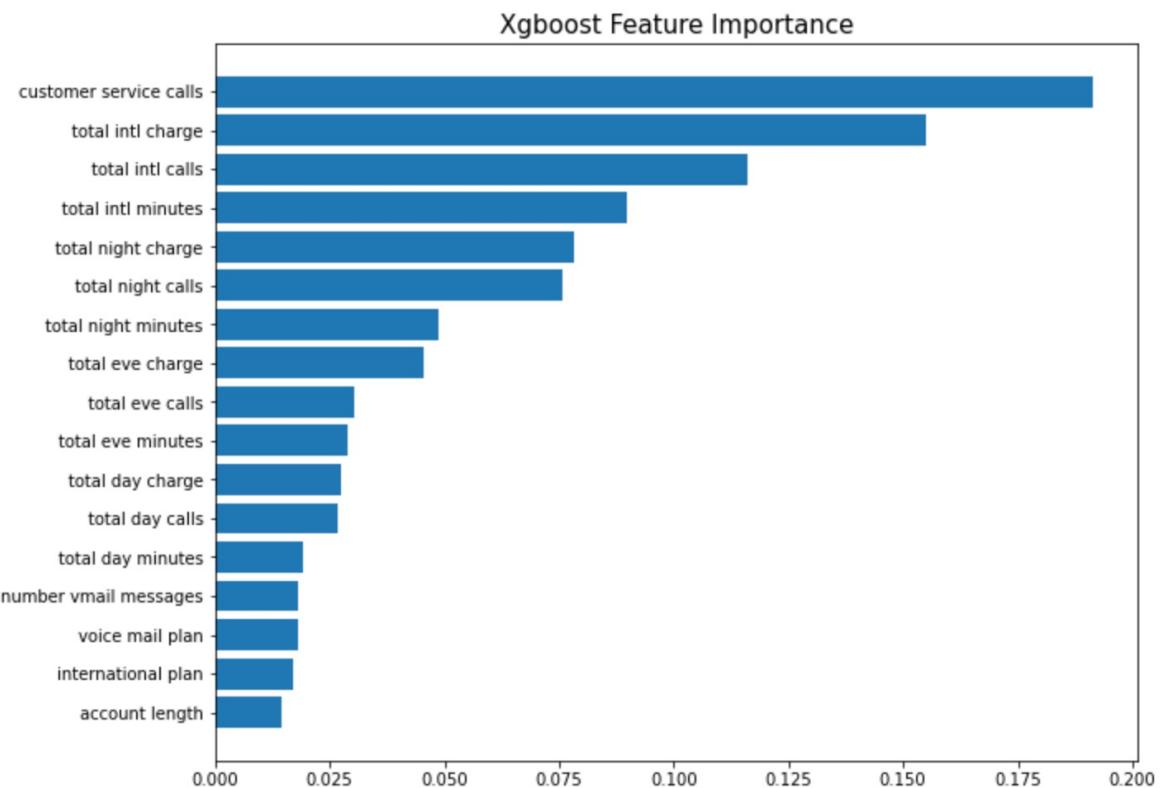
Recall: 1.0
Precision: 1.0
Accuracy: 1.0
F1 Score: 1.0

Test Scores

Recall: 1.0
Precision: 1.0
Accuracy: 1.0
F1 Score: 1.0



Conclusions





Customer Service



International Plan



Voice Mail Plan

Recommendations

Future Work

- Looking for additional features like the coverage in some states and customer service rating.



THANK YOU!

QUESTIONS

https://github.com/HudaKas/churn_prediction

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