Predicting Customer Turnover
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And How We See It Coming

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The Problem

- SyriaTel, a communications company, wants to identify customers who leave their services.

- Preferably, before they leave.

- Given a database of 3,333 customers detailing many characteristics include call details, payments, and whether or not that customer retained services, develop a model to identify customers who are likely to leave and note the significant identifiers.
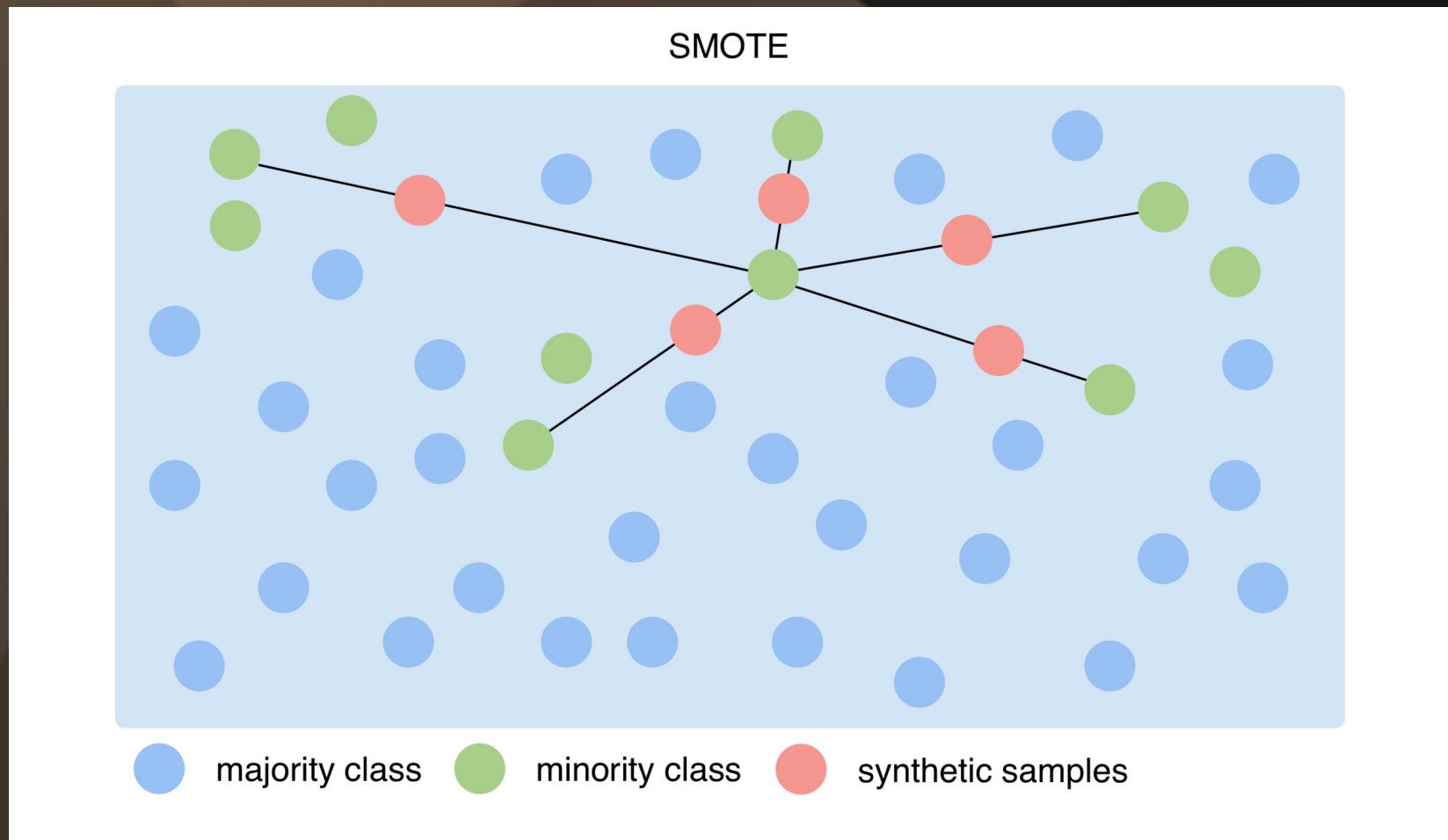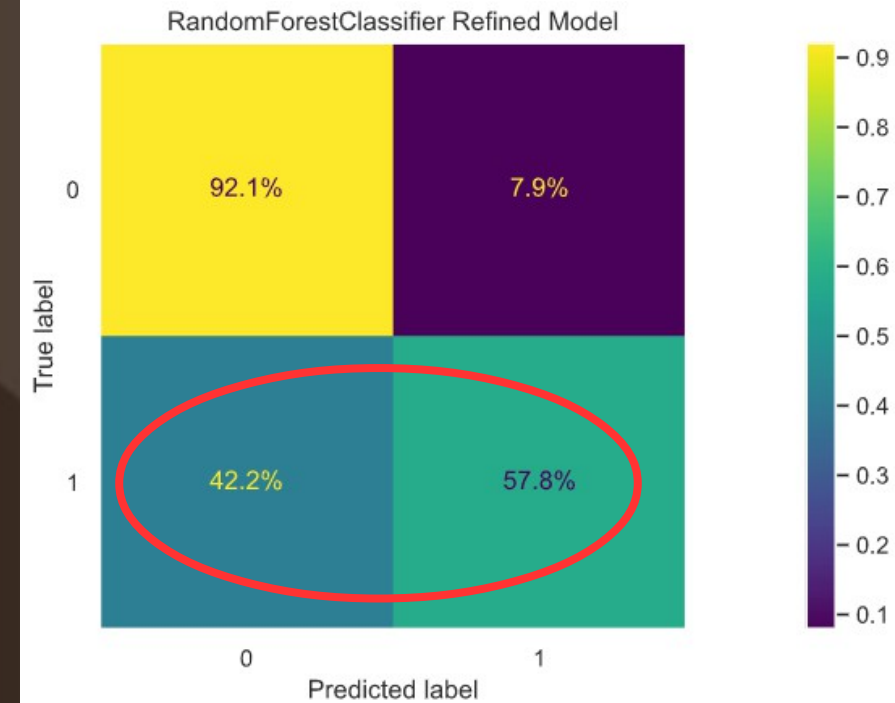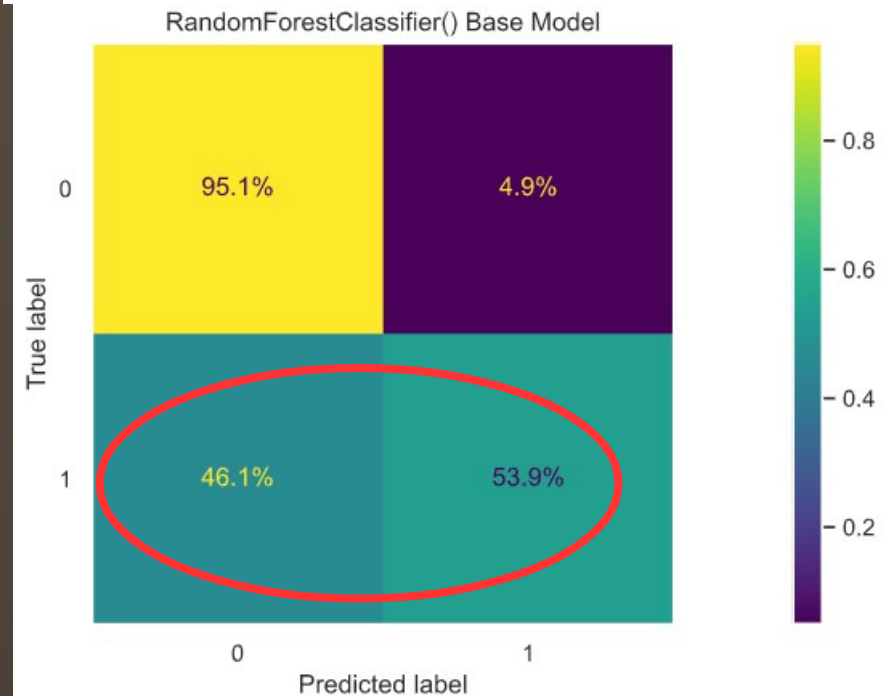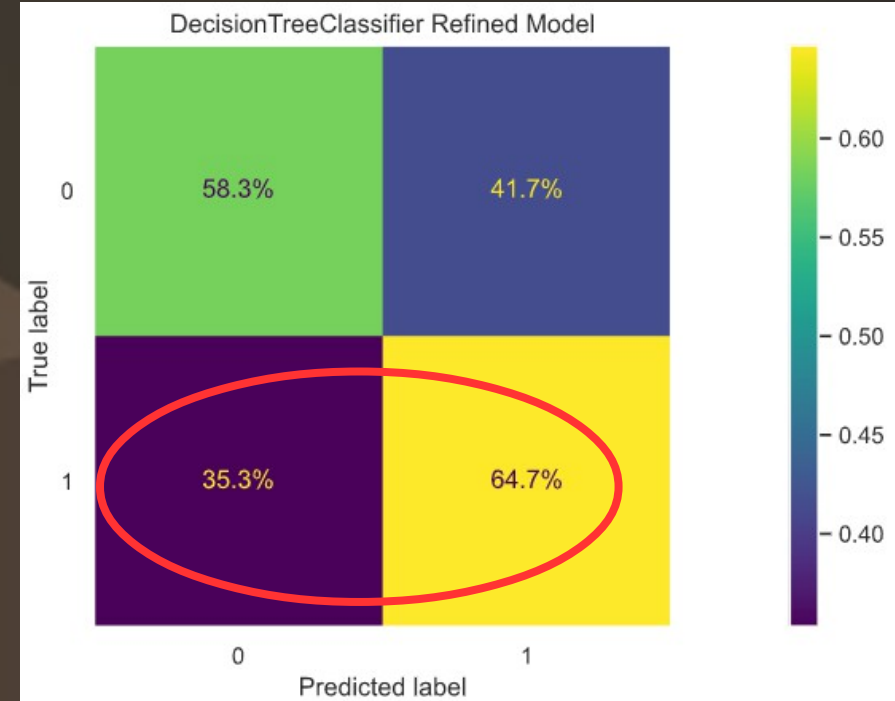
The Obstacle

Class Imbalance
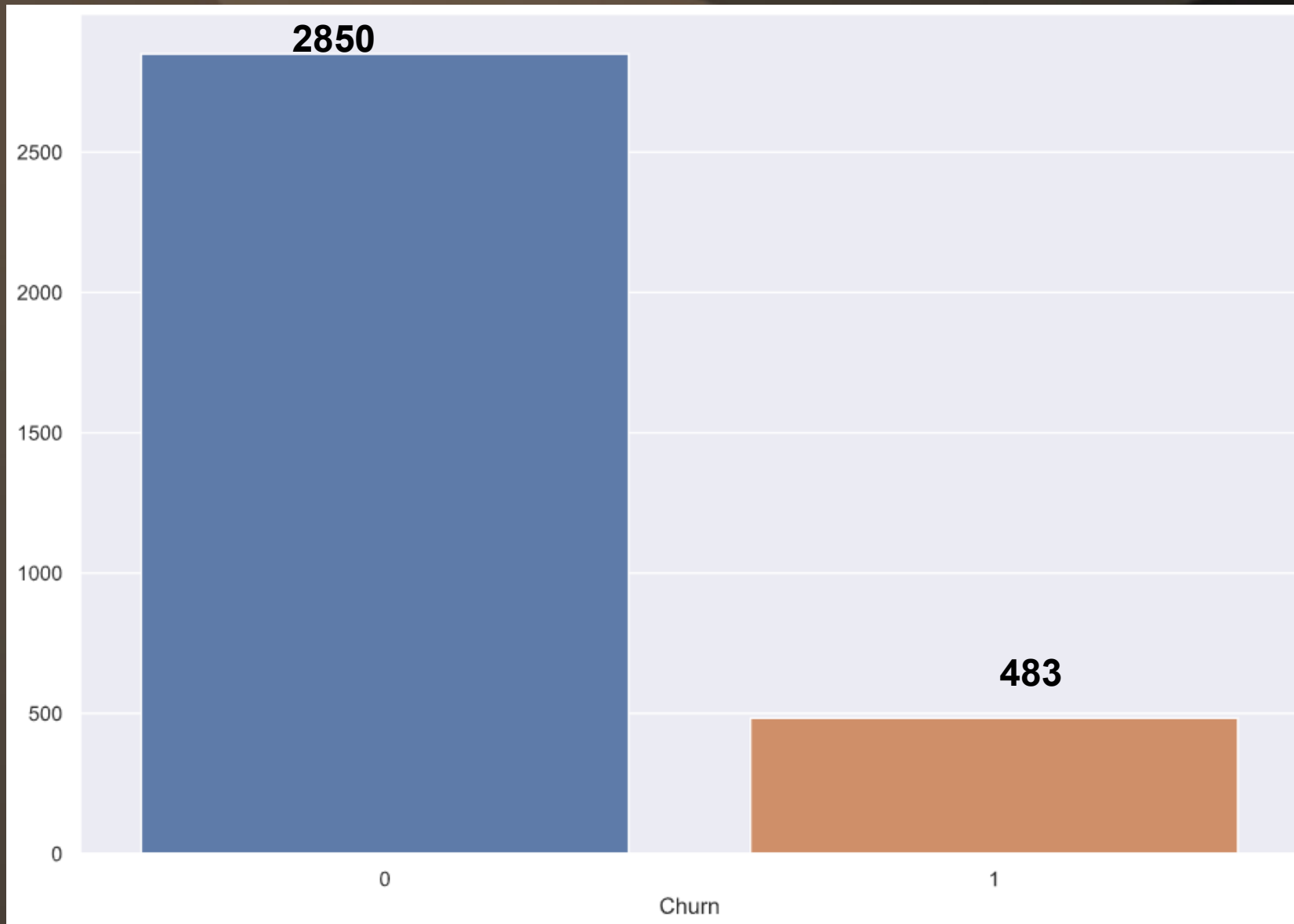
Dealing With Imbalance

- Oversampling

- Undersampling

- VAE

- SMOTE

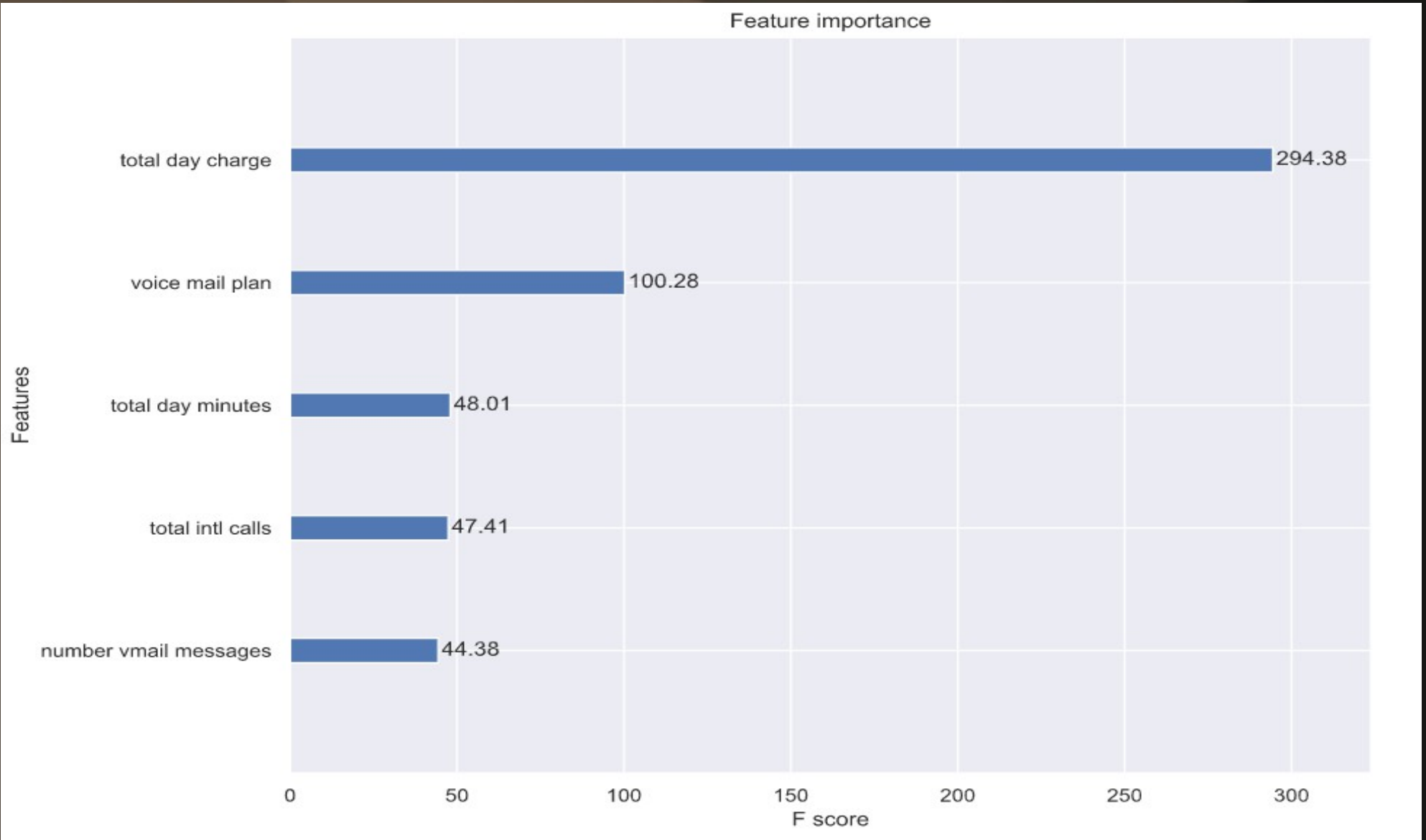

SMOTE

majority class   minority class   synthetic samples

Choosing a Model
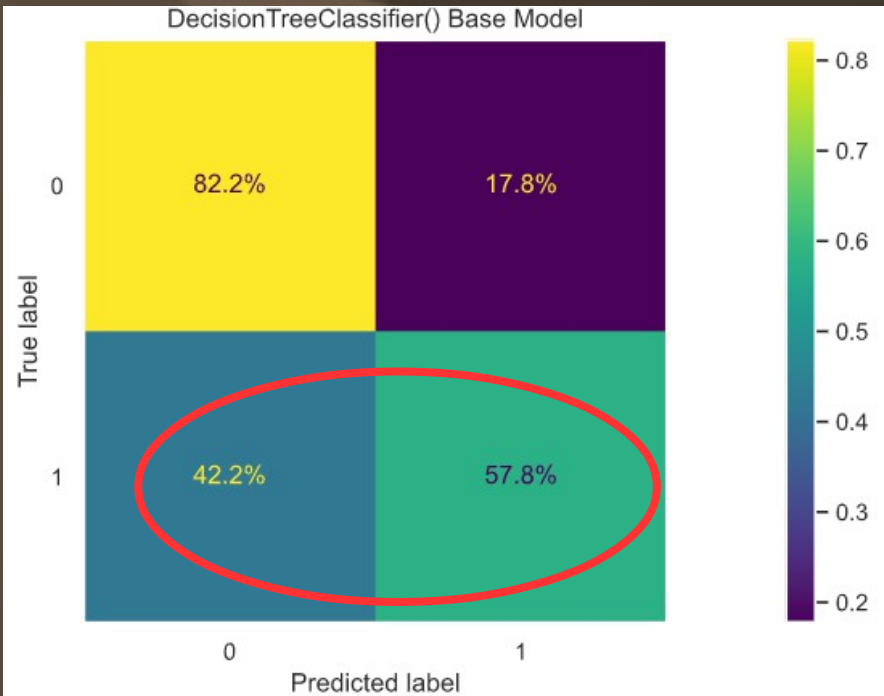
XGBoost – Recall vs F1
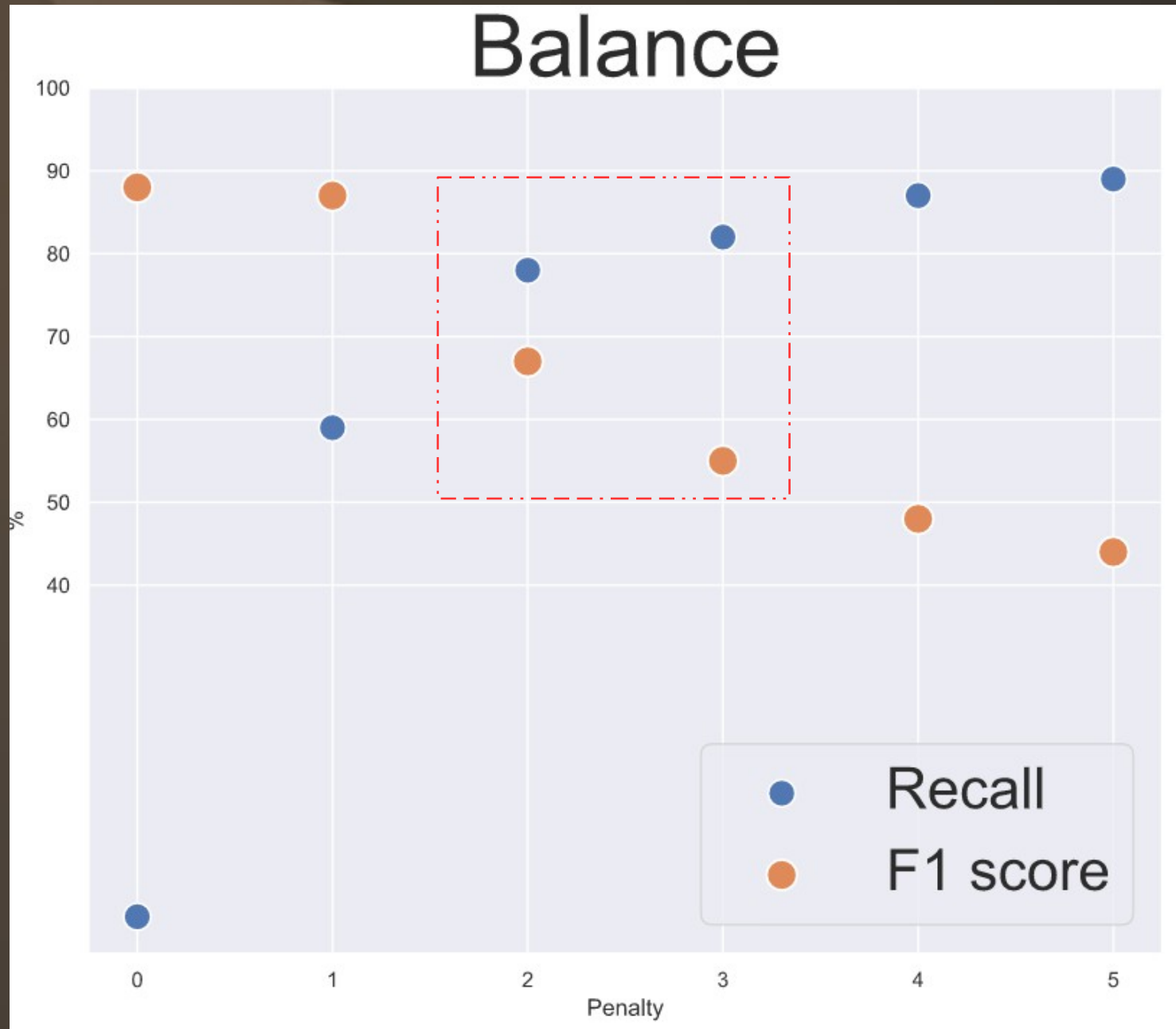
Customers Who Leave
Have These Features

Feature importance

Thanks for listening!

- Contact me! I prefer compliments. tcmcaleer@gmail.com

- Check out the work! https://github.com/tcmcaleer/SyriaTel-Customer-Retention

- Thanks to Flatiron for their support!

- Thanks to all of you!