SyriaTel Churn

By Jared Lilly

Objective

Tasked with predicting churn of customers for our telecom company

WHY?

- Saves the company money
- Potentially develop strategies to retain at risk customers

About the Data:

Kaggle dataset containing **3333** rows of SyriaTel customer information and **21** columns

Includes information such as:

- Total day minutes
- Voicemail/international plans
- Total evening minutes etc
- State their from etc.

Models Used/ Data Limitations

Models ran:

Logistic Regression

Decision Tree Classification

Random Tree Classification

Pruned Decision Tree Classification

Limitations:

Sample Size and Class imbalance:

Did not churn: 2831

Churned: 483

CHURN HURTS

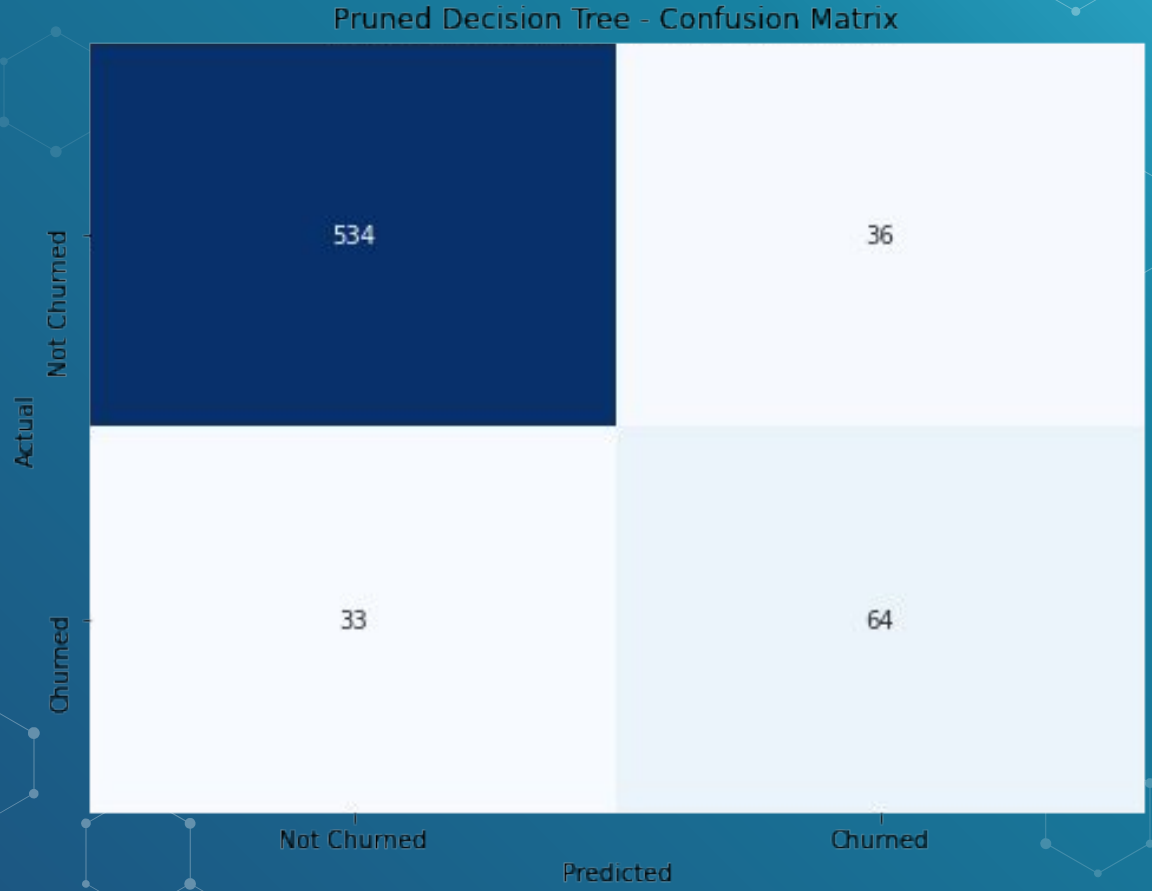
Model Evaluation:

Pruned Decision Tree:

Recall was overall best at **76%**

Why Recall?

Focuses on correctly identifying customers who might churn


Pruned Decision Tree - Confusion Matrix
534
36
33
64
Actual
Not Churned
Churned
Not Churned
Churned
Predicted

Recommendations/Next steps:

Use this model to save company money

Focus retention efforts on features:

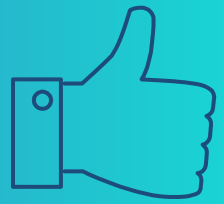
total day minutes

customer service calls

international plan

THANKS!

ANY QUESTIONS?

You can find me at:

- https://www.linkedin.com/in/jared-lilly-800a2415b/