SyriaTel Customer Churn Analysis

By: John Sheehan Tom Chapman



Understand & Predict Customer Behavior

Make the Most of Your Advertising Dollars

See Far Ahead from Our Shoulders!

Business Problem

Minimize Customer Churn

Identify Predictors

Customer Outreach



- ❖ 3,333 Customer Records
 - Location, Area Code
 - Services Used
 - Usage Statistics

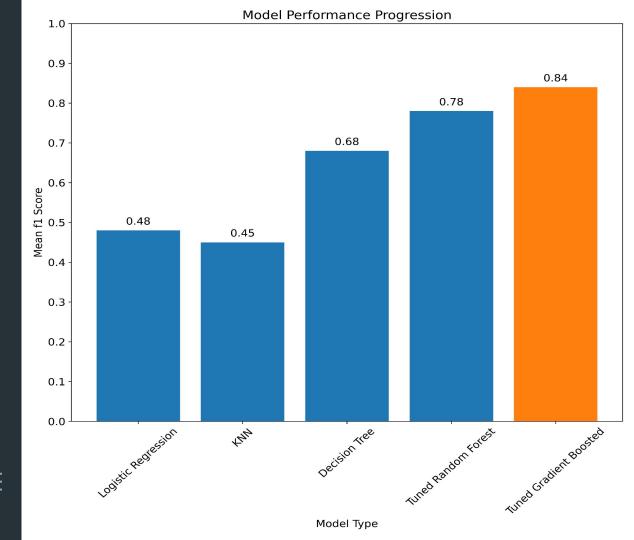


Modelling Process

 Apply Machine Learning Models to Dataset

Identify Two Best Performing Models & Tune

Final Model is Highest Performer After Tuning



Final Model Performance

Minimize incorrect predictions

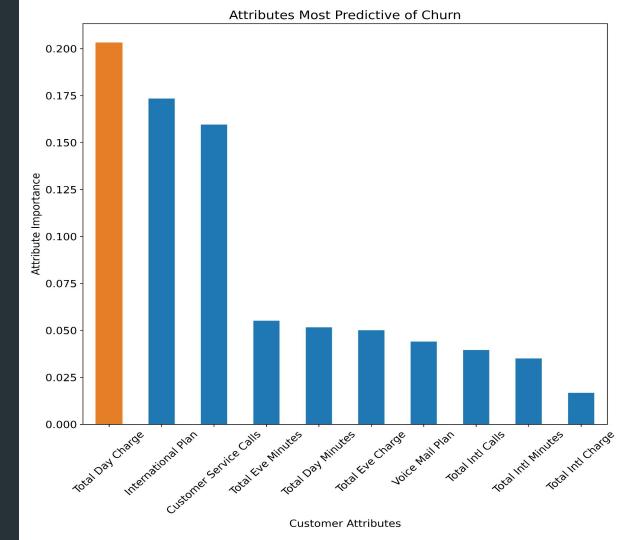
Maximize efficiency of outreach dollars

0.79 score on unseen data

Feature Importance

❖ Top 10 customer attributes out of 69 total

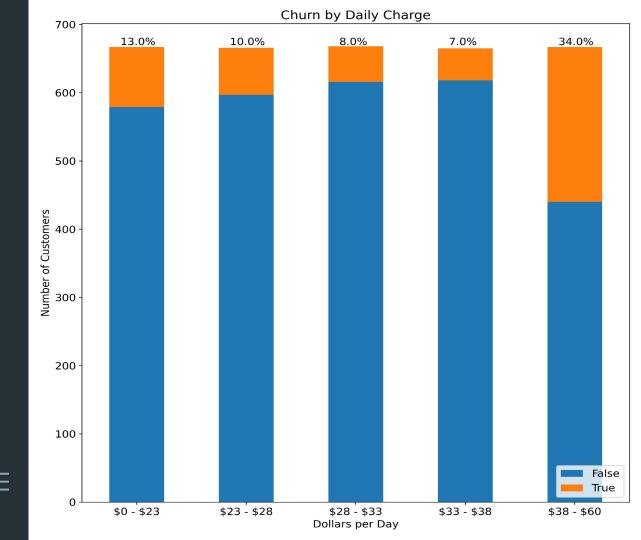
3 are most predictive of churn



Churn by Total Daily Charge

 5 equal groups (666 customers each) ordered by expenditure

Top 20% of customers by daily charge churn 3x the rest of customer base.



Conclusion & Next Steps

Customers to Target:

- Highest Daytime Charges 34% churn among top 20% spending
- ♦ International Plan Users 42% churn when on plan
- ❖ Frequent Customer Service Calls 61% churn at 4+ calls

Further Exploration:

- Cost Structure for Outreach Program
- Stickiness through Services

Thank You, Any Questions?

John Sheehan Tom Chapman

<u>Email</u> <u>Email</u>

<u>Linkedin</u> <u>LinkedIn</u>

<u>github</u> <u>github</u>