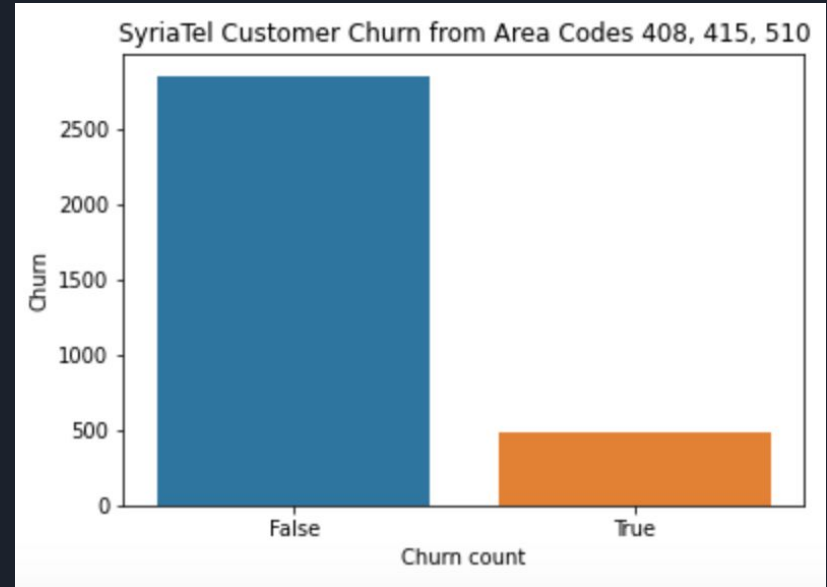# SyriaTel Customer Churn Analysis

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10/17/2020

# Problem Statement

- SyriaTel's customer churn percentage - **14%**

- Which factors predict if a SyriaTel customer will stick around or are likely to cancel their contract?

- Can we predict who is most at risk for cancelling their contract?

# Business value - the "Why"

- Losing existing customers is expensive!

- Identifying our most "at-risk" customers focuses our Account Executives' finite time

- Customer churn is a key performance indicator for SyriaTel and openly reported

# Methodology

1. Use data analysis to identify trends in SyriaTel's customer churn data

2. Build a Machine Learning model that accurately predicts which customers are most likely to cancel their account in the near future
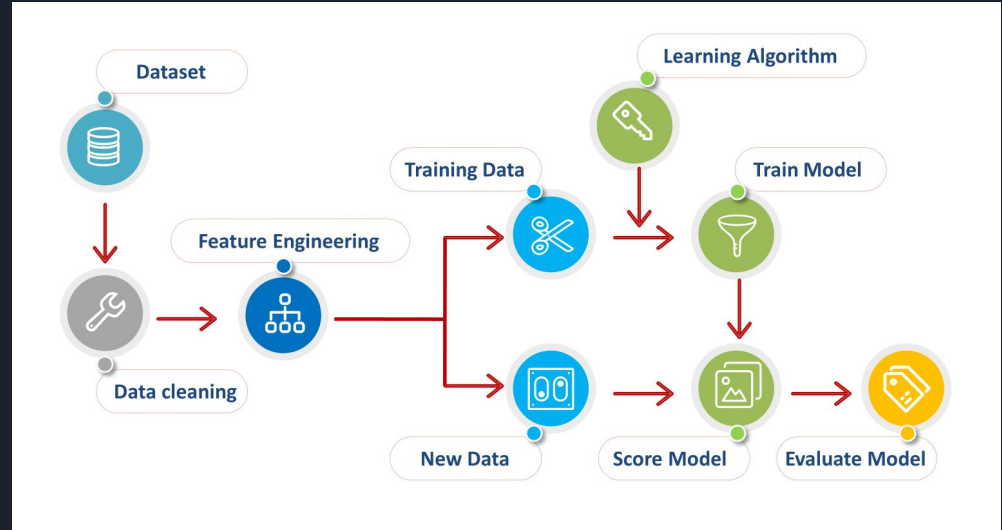
# Analysis

- We used a RandomForest classification model that predicted which customers were preparing to cancel their contract with **81% accuracy**

- What were some common attributes among these customers?
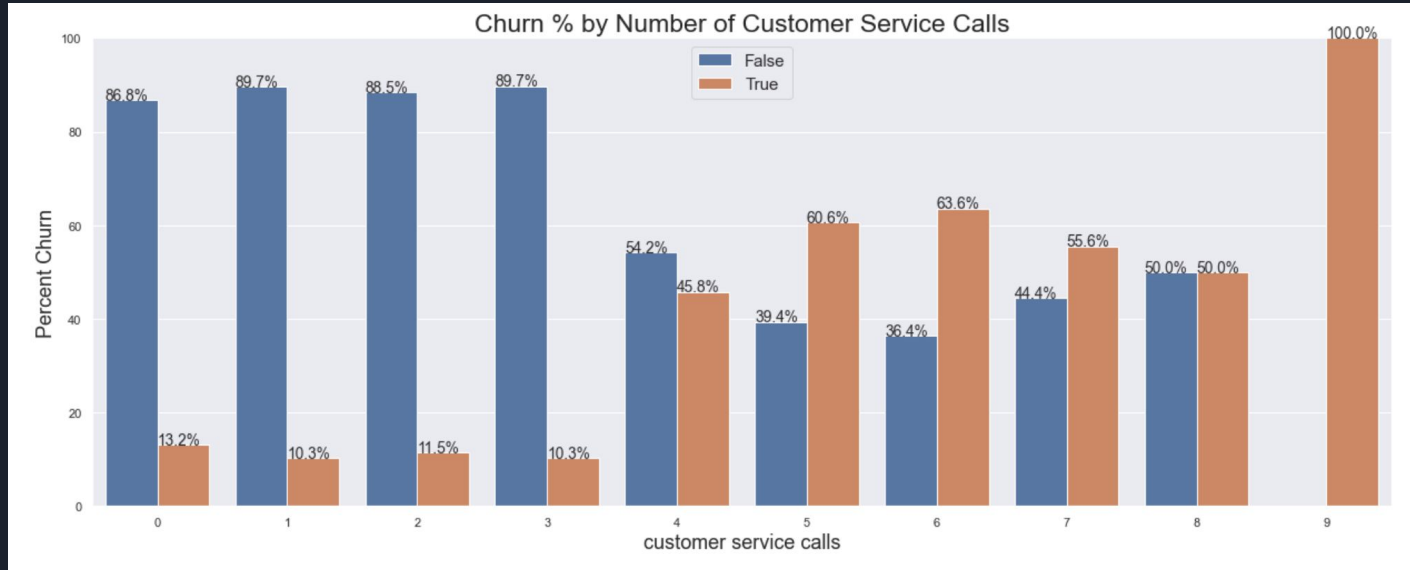


Confusion Matrix
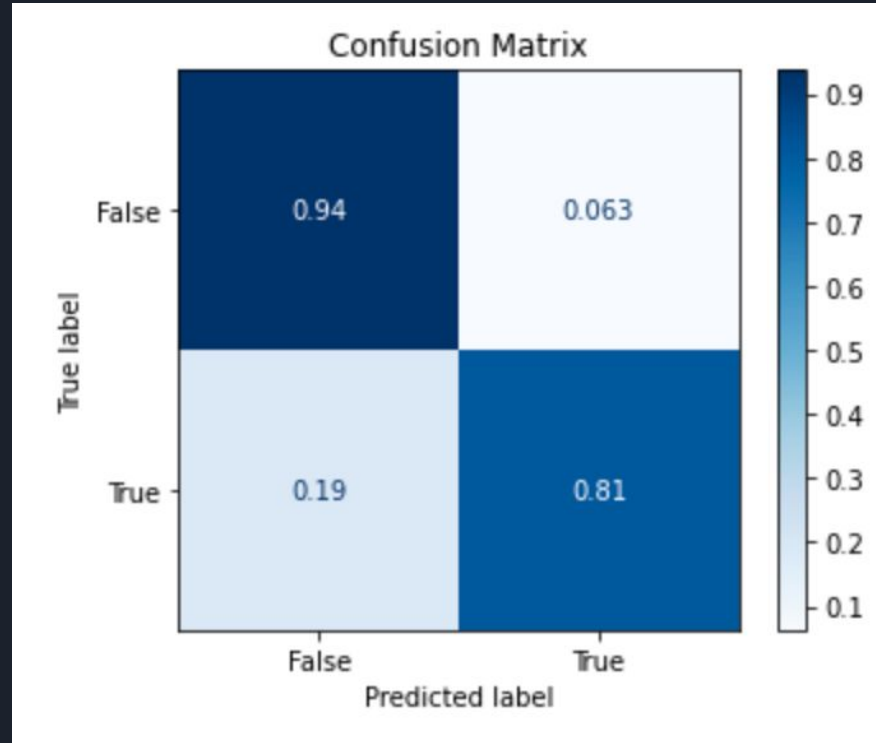
# Which customers were most likely to cancel?

1. Customers with more calls to customer service

2. Customers with international plans

3. Customers with high amount of call minutes during the day



Permutation Importances (test set)
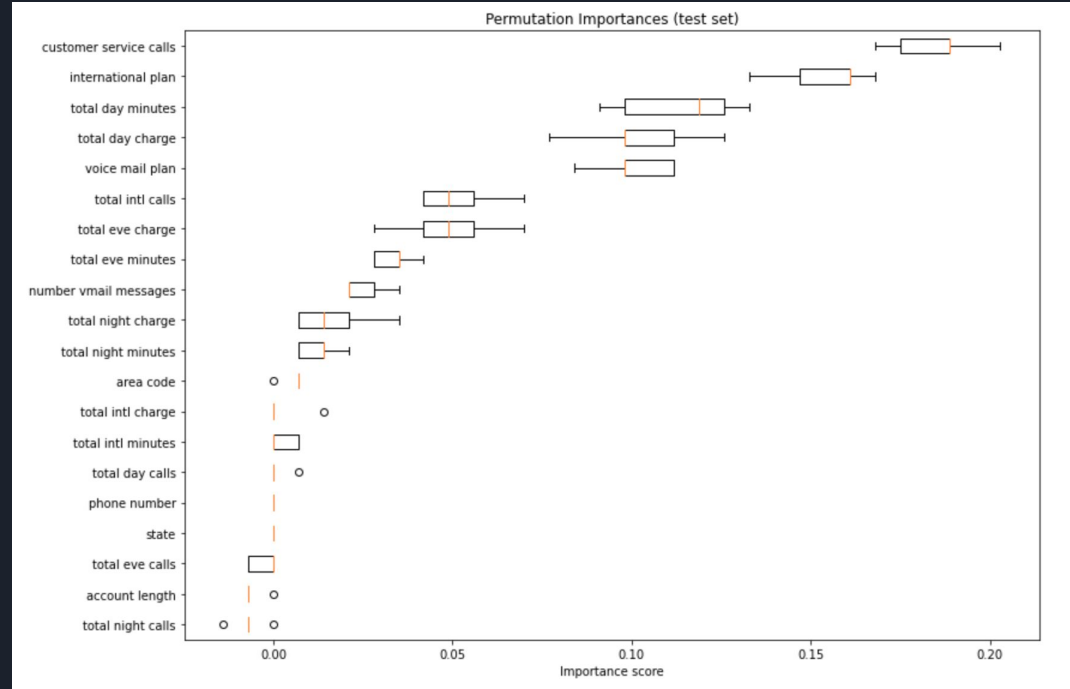
# Business Recommendation #1:
## Focus on Customer Satisfaction and experience



Churn % by Number of Customer Service Calls

Customers who make more than **4 customer service** calls are the most likely to cancel their plans.

# Business Recommendation #2
## Increase executive-level visibility

Build a **company-wide data aggregator and visualization dashboard** that continuously tracks and ranks the customers with the highest chance of cancelling.

**Result**: Company-wide and executive level visibility on the most high-risk accounts

# Business Recommendation #3
## Collect detailed customer feedback

Solicit and record **customer feedback** from departing customers. Create a new database just for this purpose.

**Result:** A more granular understanding of **why** SyriaTel's customers are cancelling their contracts.

# Future Work

- Collect more churn data from other area codes to provide a more complete analysis of SyriaTel's customer base

- Include existing customer feedback and/or market research into <u>existing</u> and <u>future</u> customer churn datasets

- Explore ways to provide better and more real time data to our Account Executives

# Thank you!

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