



# Churn Prediction for SyriaTel

Using classification models to identify which customer are likely to leave

# Our Data

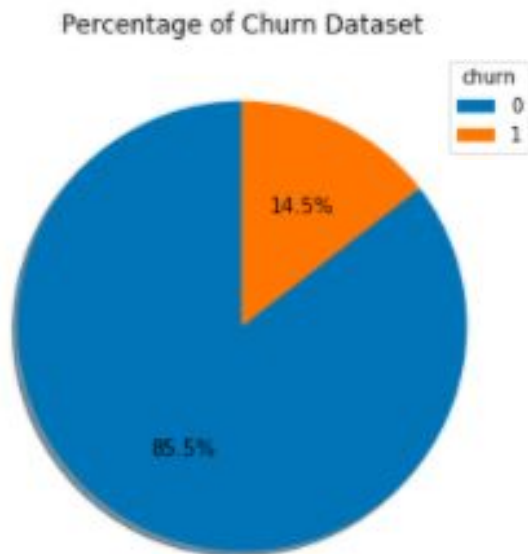
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## ❑ Total Customers:

- ❑ 3,333
- ❑ No Churn: 2,850
- ❑ Churn: 483

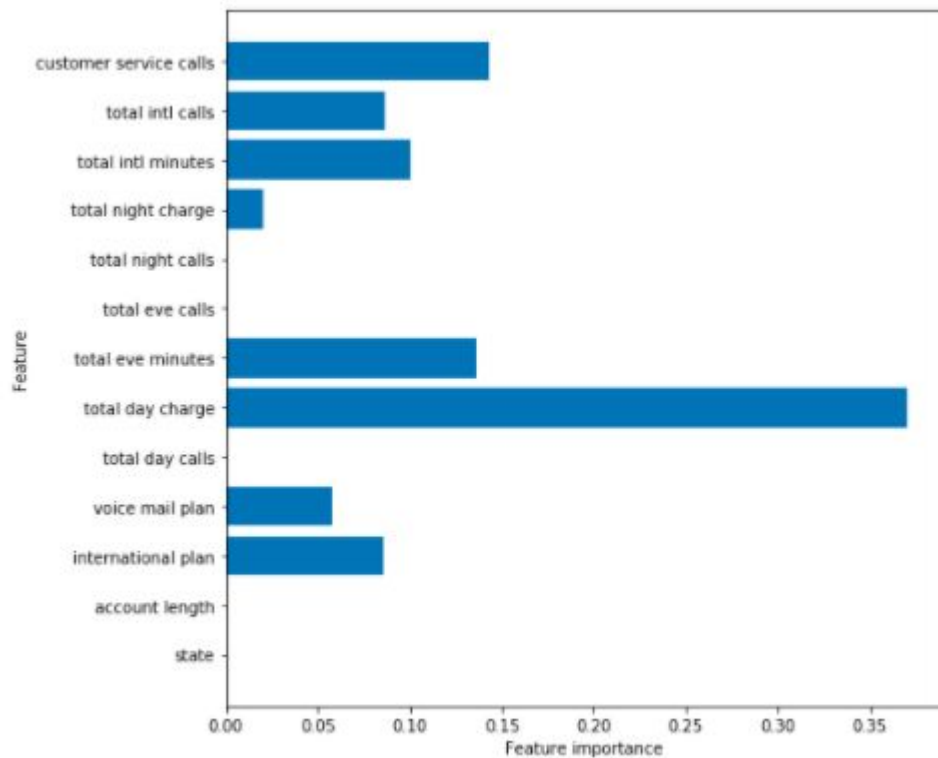
## ❑ Key Features

- ❑ State
- ❑ International Plan
- ❑ Voicemail PPlan
- ❑ Total day calls
- ❑ Total day charges
- ❑ Total night minutes
- ❑ Total night calls
- ❑ Total night charge
- ❑ Total international charge
- ❑ Total International calls
- ❑ Customer service calls



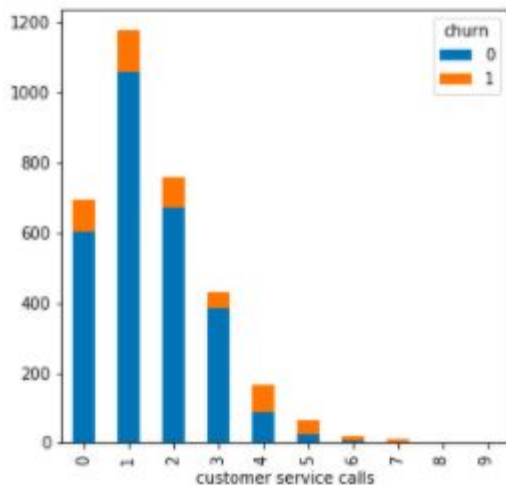
# Model's Most Important Features

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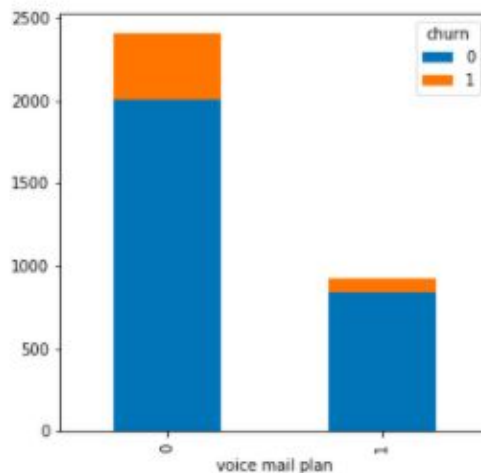
# Feature Exploration For Setup

Customer Service Calls



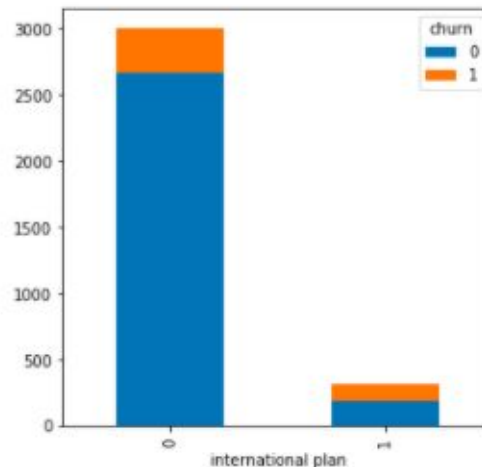
Clearly a trend that after 3 customer service calls you start to see diminishing returns

Voicemail plan



Less churn if you set up a voicemail plan

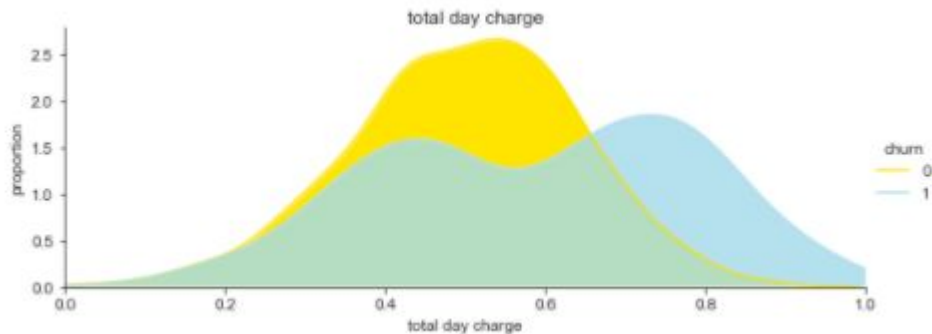
International plan



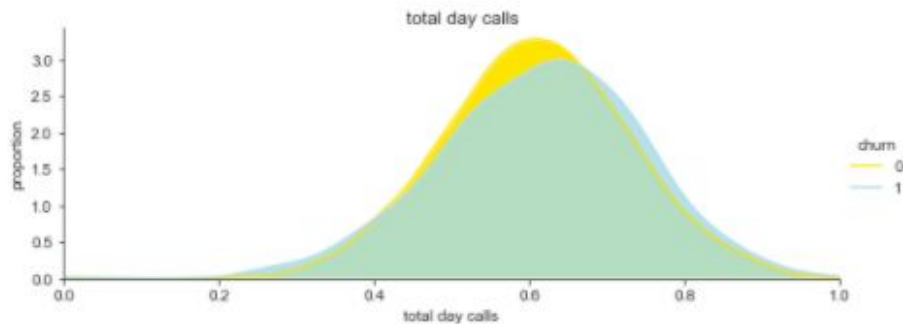
Nearly 50% of those with international plans are churning

# Feature Exploration For Daily Use

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This was our largest key indicator. Greater the charges, higher the churn



Total calls during the day does not have such an obvious trend.

# Business Suggestions on Important Features

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1. **Customer Service Calls:**
  - a. **Improve FAQ's for limited service calls**
  - b. **Dive deeper into the largest reasons customers are calling**
2. **Total Day Charge**
  - a. **Notifications to customers in advance of overages**
  - b. **Pay plans for customers who anticipate overages**
3. **International Plan**
  - a. **There are very few customers even using international plans, and those that are, nearly 50% are churning. Possibly get rid of this service completely.**

# Places Worth Further Examining

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1. **Wholistic time data:** Interesting to combine all of the data for day and night time into a wholistic picture of total minutes/charges throughout.
2. **Digging into the probability of each customer churning over a certain time period.** Can we predict the probability of exactly when each customer might churn
3. **Competitor solution data.** Can we tap into how other phone companies are combating these churn issues.





Thank You. Any Questions?