

Customer Churn Prediction

Objectives

- Perform exploratory analysis and extract insights from the dataset.
- Build a model to predict which customers will churn and discuss why you choose a particular algorithm.
- Establish metrics to evaluate model performance.

Areas to focus:

1. Explore the Data and find the general information about the data/insights.
2. Exploratory Data Analysis
 - a. Non-Graphical/Graphical/Multivariate Analysis
 - b. Outlier/Anomaly Detection and treatment
 - c. Feature Engineering (if any)
 - d. Feature Selection (if any)
3. Model building
 - a. Dimensionality Reduction
 - b. Selection of the right model for the problem statement with reason
 - c. Creating the evaluation metric and selecting the right metric

Dataset: [Data](#)

Data Dictionary:

Column Name	Column Description
State	The state where a customer comes from
Account length	Number of days a customer has been using services
Area code	The area where a customer comes from
Phone number	The phone number of a customer
International plan	The status of customer international plan
Voicemail plan	The status of customer voicemail plan
No. vmail msgs	Number of voicemail message sent by a customer
Total day minutes	Total call minutes spent by a customer during day time
Total day calls	Total number of calls made by a customer during day time
Total day charge	Total amount charged to a customer during day time
Total eve minutes	Total call minutes spent by a customer during evening time
Total eve calls	Total number of calls made by a customer during evening time
Total eve charge	Total amount charged to a customer during evening time
Total night minutes	Total call minutes spent by a customer during night time
Total night calls	Total number of calls made by a customer during night time
Total night charge	Total amount charged to a customer during night time

Total intl minutes	Total international call minutes spent by a customer
Total intl calls	Total number of international calls made by a customer
Total int charge	Total international call amount charged to a customer
Customer service calls	Total number of customer service calls made by a customer
Churn	Whether a customer is churned or not