

Customer Churn Prediction Using Machine Learning

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Problem Statement

Customer churn rate is the rate at which a user using an application or an individual who is receiving any service abandons the service or application they are using. This rate is a very important issue for companies. Customer churn, also known as customer attrition, refers to the phenomenon where customers stop doing business with a company. Predicting customer churn is crucial for businesses as it helps them identify at-risk customers and take proactive measures to retain them. Retaining existing customers is often more cost-effective than acquiring new ones, making churn prediction a critical task for improving customer satisfaction and profitability. Machine learning plays a significant role in solving this problem by analyzing historical customer data to identify patterns and predict which customers are likely to churn. By leveraging machine learning algorithms, businesses can develop targeted retention strategies, such as personalized offers or improved customer service, to reduce churn rates. This project aims to build a machine learning model to predict customer churn based on customer behavior, demographics, and transaction history.

Dataset

The dataset chosen for this project is the "Telco Customer Churn" dataset, sourced from Kaggle.

- Dataset Name: Telco Customer Churn
- Source: Kaggle.com
- Number of Samples: 7,043
- Number of Features: 33
- Type of Data: Tabular (Excel)
- Target Variable: Churn (binary classification: Yes/No)

References

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