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Frequenter Stir Foretell in Telecom Industry

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Abstract: The ability to predict the customer attrition has considerably improved with the development of machine learning and artificial intelligence. Customer churn prediction is a critical task in the telecommunication industry, where companies aim to reduce the number of customers who switch to competitors. In recent years, XGBoost has emerged as a powerful machine learning algorithm that has been successfully applied to various domains, including customer churn prediction. This paper presents a study on the application of XGBoost algorithm for predicting customer churn in the telecommunication industry. The study utilizes a real-world dataset from a telecom company and employs XGBoost to build predictive models for customer churn. The paper provides a comprehensive analysis of the features that influence customer churn, including customer demographics, call duration, and network quality. The performance of the XGBoost model is evaluated against other popular machine learning algorithms, including random forest and logistic regression. The results show that the XGBoost model outperforms the other algorithms in terms of accuracy, precision, recall, and F1-score. The paper concludes by highlighting the significance of XGBoost in customer churn prediction and suggests potential areas for future research in the field. Overall, the study provides valuable insights to telecom companies to improve their customer retention strategies and reduce customer churn.

Keywords: Customer Churn Prediction, Machine Learning, Predictive Modeling, Confusion Matrix, AUC Curve.

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