Waze User Churn Project – Regression Analysis

Executive Summary Report IV

Milestone 5

Project Overview

The project focuses on boosting growth by reducing the rate of monthly user churn in the Waze app. Churn refers to users who have either uninstalled the app or ceased using it. Our objective is to develop a regression model to predict user churn using the provided data.

Key Insights

- The model's precision of 53% is moderate, but its recall is very low, capturing only 9% of churned users. This indicates that the model frequently misses users who will churn.
- The number of activity days was the most influential predictor in the model, showing a negative correlation with churn which is expected.
- While prior EDA suggested that churn increased with higher distance per driving day, this feature ranked as the second-least-important in the model.
- With adequate data, the results from the binomial logistic regression model can uncover significant variable relationships and predict outcomes, aiding in decision-making for marketing and product strategies.

Details

- We leverage user data to construct and assess a binomial logistic regression model.
- Key features are identified, their multicollinearity is evaluated and they are passed through the logistic regression model before assessing performance.
- Recall is particularly important here as it indicates how many churned users were correctly identified.

	Precision	Recall	F1-Score	Accuracy
LogReg	53%	9%	16%	82%

Negative (0) = Retained user

Positive (1) = Churned user

Next Steps

1. Collect additional data that could better correlate with user churn.
2. Refine the user profile that Waze aims to target to improve user retention.