

Project Proposal

Title: Waze Predictive Churn Model

Start Date: July 2024

Project Lead: Harriet Hadzic

End Date: August 2024

Executive Summary:

The firm (Waze) is focusing efforts on growing the business and has requested that the Data Analytics team build a model that predicts user churn. If Waze can identify a segment of users who are at high risk of churning, Waze can proactively engage these users with special offers to try and retain them. Otherwise, Waze may simply lose these users without knowing why.

Mission Statement:

Build a model predicting churn to help optimize the company's retention strategy, enhance user experience, and make data-driven decisions about product development.

Stakeholders:

Model Developers

Harriet Hadzic	- Director of Data Analysis
May Santner	- Data Analysis Manager
Chidi Ga	- Senior Data Analyst
Sylvester Esperanza	- Senior Project Manager
David DiPasquale (Me)	- Data Analyst

Important Contributors

Emrick Larson	- Finance and Administration Department Head
Ursula Sayo	- Operations Manager

Prerequisites:

- Who are going to be the model users? Will the Data Analytics team be responsible for running and analyzing these metrics monthly?
- How good is the company data pertaining to this topic? Do we have a sufficient amount of reliable data to complete this project at this moment in time? If not, can we generate synthetic data?
- Are there any data governance concerns or actions which need to be taken?
- How will we handle missing data and any required transformation?

Questions to Answer By Project End:

- What variables will be most useful?
- Are their trends within the data that can provide insight?
- What steps can the team take to reduce bias?
- What metric is appropriate to evaluate the model? Accuracy? Recall? F1-score?
- Do we have a standard model validation plan to follow? Will this project require unique steps? What barriers will we implement to prevent model drift over time and any decrease to performance?

Resources:

- Data
- Python/Jupyter Notebooks
- Input from stakeholders
- Required budget

Roadmap:

Milestones	Tasks	Deliverables	Relevant Stakeholders
1	Write project proposal	Approved doc	David DiPasquale (Analyst) May Santner (PM)
2	Compile summary information about the data	Data files ready for EDA	Chidi Ga (Sr. Analyst)
3	Data exploration & cleaning	EDA report	Chidi Ga (Sr. Analyst)
4	Visualization building	Tableau dashboard	Sylvester Esperanza (Sr. PM)
5	Computer descriptive statistics	Analysis	David DiPasquale (Analyst)
6	Conduct hypothesis testing	Analysis	May Santer (Manager)
7	Build a regression model	Model	Chidi Ga (Sr. Analyst)
8	Evaluate model performance	Team Leadership Approval	Harriet Hadzic (Director)
9	Validate the model on new data	Final model	May Santer (Manager)
10	Communicate insights	Report	Harriet Hadzic (Director)