BootLoader Donation Prediction and Analysis

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Executive Summary

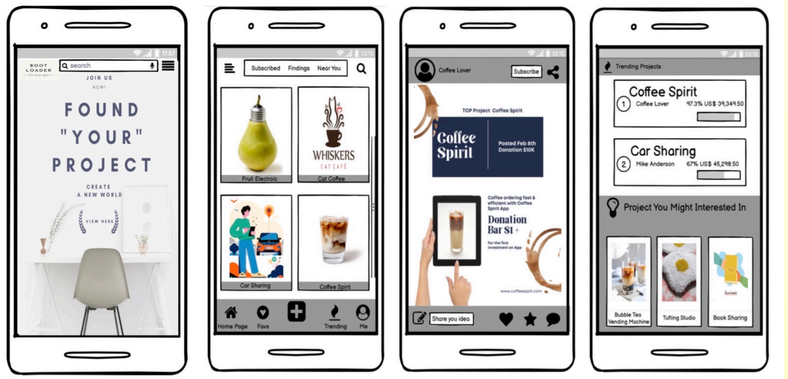
BootLoader is a crowdfunding mobile app. BootLoader helps people crowdfund their creative projects. Anyone with an idea, dream, and 2-minute video can post their project on BootLoader. Others then donate money to the project to help bring it to fruition. We were able to track user's interactions with the mobile app and have been collecting analytics data on how the users view and fund projects.

Our purpose is to help determine what segment of users would be interested in specific project types and has the potential to fund the projects. We aim to perform analysis on user's preference on projects, therefore the software can precisely deliver notification to segments of users, based on specific attributes and leading to more funds. We also want to initiate a model to predict the amount of donation from the users.

Data Overview

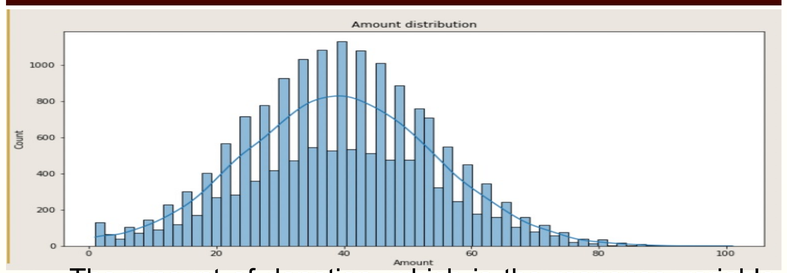
The data is from Localytics Data Visualization Challenge of a fictional, containing 20658 entities with 13 variables including category, client_time, amount, session_id, age range, gender, location, city, state, latitude, longitude, marital_status and device. There is no missing data. The target response variable is amount.

UI/UX Mockup

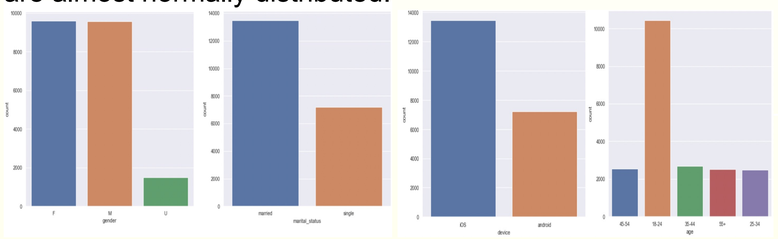


Welcoming Page | Home Page | Project Page | Ranking Page

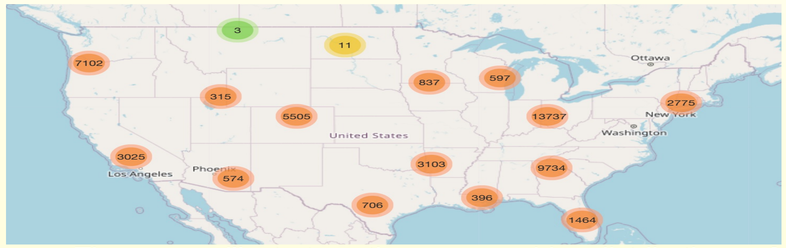
Exploratory Data Analysis



The amount of donation, which is the response variable are almost normally distributed.



The amount of female and male donates are almost the same. Married users tend to donate more frequently. IOS user tend to donate more. Young generations usually donate more while other age groups donate about the same.

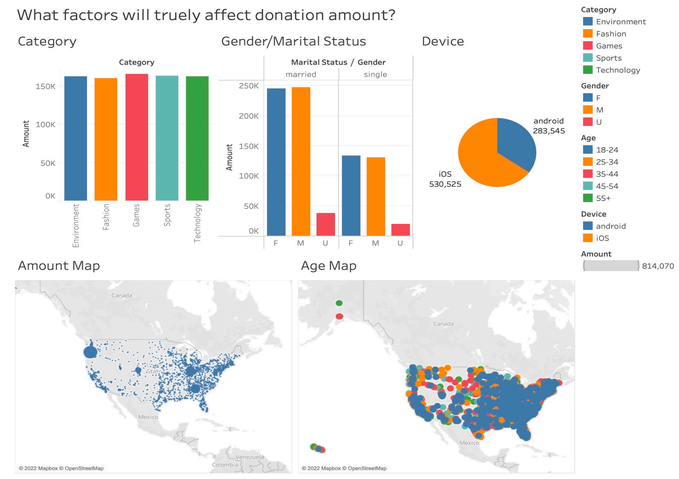


The map illustrates the geographic distribution of donators.

Modeling Results

Model	Test RMSE	CV RMSE	Train RMSE
Linear Regression	14.775	14.995	14.942
Decision Tree	14.859	15.051	14.87
Random Forest	14.855	15.015	14.87

Dashboards and Visualizations



Games, Sports, Environment, Technology and Fashion are all hot projects. There is no big difference among them. As for gender and marital status, gender does not affect donation greatly. Compared with single people, married people are more willing to make donations to projects. IOS users donate more. And the amount map and age map tell us that people living in the east region and the west coast are more interested in these projects. And younger people are more willing to try this way to support their favorite projects.

Insights and Conclusion

After fitting the model, Married, Device, Location, Age are key factors. Category and Gender are Ordinary Factors. After analyzing the data, we can find out characters of donators: They are more likely to be married people, using iPhone/ Mac/ iPad, living in the East and West Coast and aged 18-24. Also, we find out trending project themes include Games, Sports, Environment, Technology, Fashion. Among those themes, donators are more willing to donate money to games and sports projects.