Launch a Successful Kickstarter

**Problem Statement**

Crowdfunding platforms have gained incredible momentum in the past decade for seamlessly funding personal projects. Kickstarter is the most prominent and unique crowdfunding platform where creators design the layouts, set the time frames and establish funding goals for their campaigns. If, otherwise, donors do not contribute enough to meet the goal, the campaign is considered failed and the fund is not delivered. Therefore, launching a successful campaign is critical to fund seekers and their delivery of their projects. This project is an attempt to understand features that lead to successful campaigns and utilize machine learning to predict the outcomes of campaigns.

**Who Would Care?**

Fund seekers worry about their campaign successfulness. One of the most important factors in project management is delivery on time. Even though fund seekers can relaunch another campaign, not being able to meet the goal the first time around can mean that their business may need a loan for continuing operation, their funeral may be postponed, or their treatment for a disease may be delayed. Being able to offer a stress-free campaign is critical to fund seekers that are already under incredible emotional and mental stress.

If fund seekers do not form a successful campaign, Kickstarter do not receive their commission. Kickstarter’s business model is formed under a 5% commission on the funds collected for fund seekers. However, if the campaign fails, not only do the fund seekers do not receive their financial support for their projects, but also Kickstarter does not collect their fees. Since this is the main source of income for Kickstarter, campaign success is critical for Kickstarter’s continuing operation.

Passionate backers may want to know the successfulness of campaigns before making funding commitments. Since some campaigns are positioned to failed from the algorithm perspective, backers may still like to contribute to provide funding remediation for the projects. For example, a campaign is launched for a funeral. If the goal was not met, the family may need to fund the funeral entirely on their own, however, if backers are better informed of potential outcome, they may seek alternative delivery methods to provide financial solace.

**Data:**

The datasets were found on webrobots.io where they crawl all Kickstarter projects once a month. For this project, the 2019-08-15 dataset was used. There are 56 datasets each containing features including but not limited to launched dates, completion dates, goals, titles of the projects, etc.

<https://webrobots.io/kickstarter-datasets/>

**Approach to Solving the Problem:**

Python pandas package would be used for data wrangling and NLTK would be used for text preprocessing. All the datasets would be merged, and inconsistencies and missing data would be checked and eliminated through logical procedures.

Exploratory analysis would be done through matplotlib and seaborn packages to provide a visual understanding of the underlying data, illuminating interesting discoveries along the way. If statistics is needed, numpy and scipy.stats would be the primary tools to facilitate regression, normal distribution and hypothesis studies.

Classification models would be used on the dataset to predict the outcomes for the campaign and as a result sci-kit learn would be the main package for the machine learning part of the project. Fitting the dataset through a recurrent nueral network would be conducted and Keras would be the designate package for the task.

**Deliverables:**

The code for the project and report would be available on github. A short powerpoint would also be available for project as well.