

Coderoos



KICKSTARTER

Project Success - Analysis and Prediction

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» neue fische
School and Pool for Digital Talent

This project was created within the scope of the Data Science Bootcamp by neuefische GmbH, Hamburg, Germany

Note that we were supposed to come up with a groupname. The name "Coderoos" is purely fictional and has no affiliation with any possible real life company.



"I'm starting a Kickstarter campaign to fund a rival to Kickstarter."



School and Pool for Digital Talent

Kickstarter is a US croudfunding platform founded in 2009

Table of Contents

1. Problem Statement
2. Business Value
3. Methodology
4. Factors for Success
5. Prediction
6. Recommendations
7. Future Work
8. Appendix



<https://www.vectorstock.com/royalty-free-vector/cartoon-library-bookshelf-vector-16148052>

Manuel Klein

- Founder of Coderoos
- Data Scientist
- Consultant
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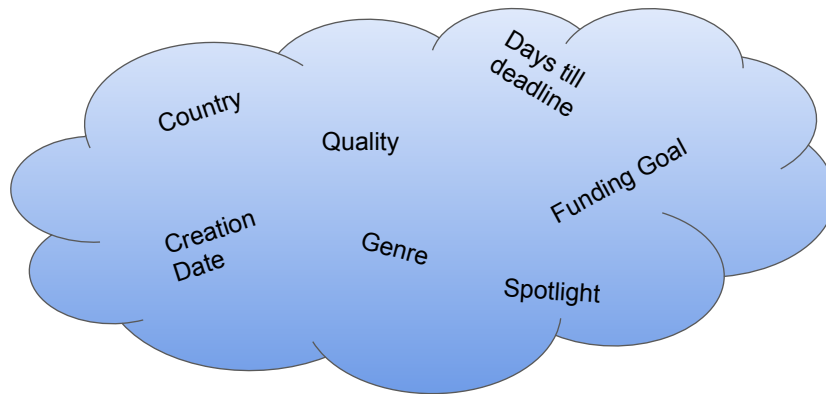
Simon Lau

- Founder of Coderoos
- Data Scientist
- Masters degree in Mathematics
 - Focus on discrete mathematics and graph theory



Problem Statement

What are the major influencing factors for Project Success?



One major aim of this project is to find the most important influencing factors for project success of Kickstarter projects.

Business Value

For project owners:

- Probability of project success
- Features for a successful project



Scope of this project are two business cases. The first one focuses on people who have a business idea and want to finance it via Kickstarting using crowdfunding. For these people we want give an insight into the key parameters that make a Kickstarter project successful. Moreover we want to predict the likelihood of success in advance for a particular project.

Business Value

For pledgers:

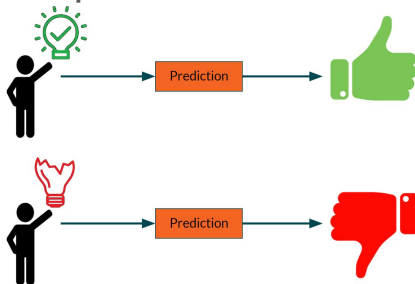
- Identify if a project is promising
- When to pledge?



The second business case assumes that somebody is interested in supporting Kickstarter projects. The question arises how to know in advance if a project is likely to be successful or not. Similar as before, once again the key success factors are interesting to know. The probability of success for a particular project that has already been launched will be calculated for those people.

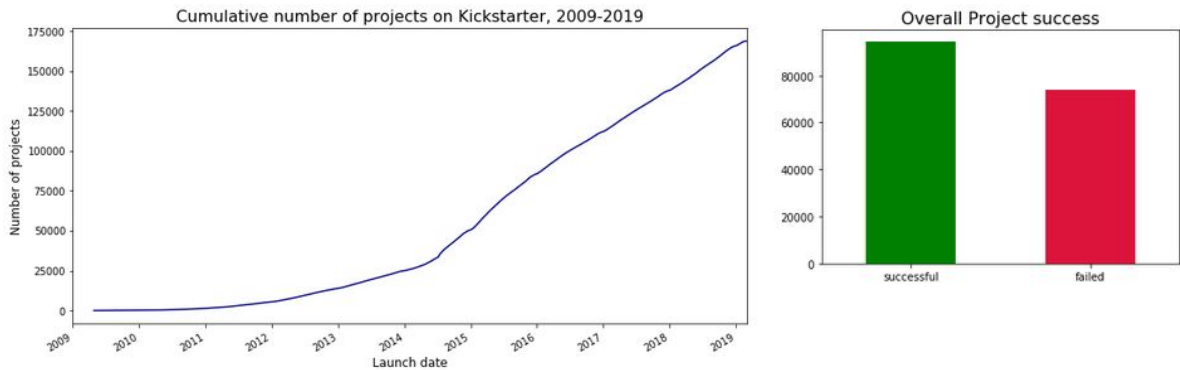
Methodology

- Analysis of the web scraped Data
 - > 200,000 projects, 37 features
- Prediction with multiple classification models



The data used for this project can be downloaded on the following website:
<https://webrobots.io/kickstarter-datasets/>

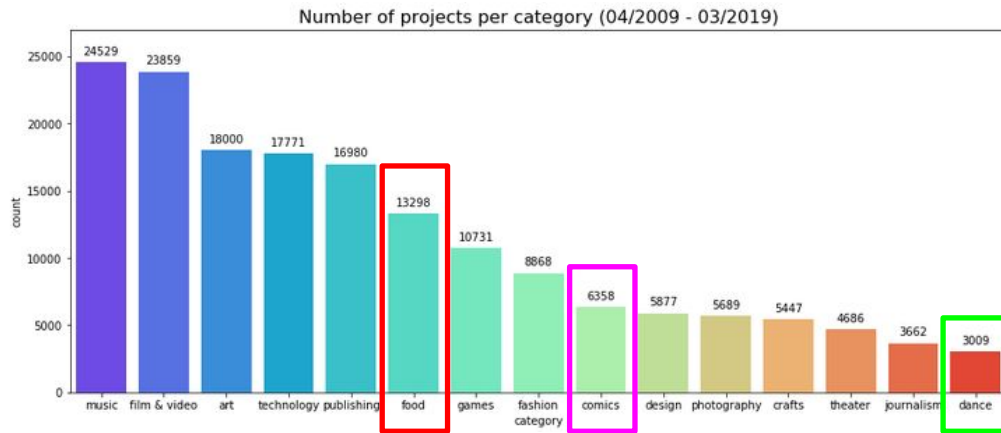
Business Introduction



The number of projects launched on Kickstarter is growing constantly. While the US market for Kickstarter projects is constantly rising, also projects from foreign countries can be found more and more often on the platform.

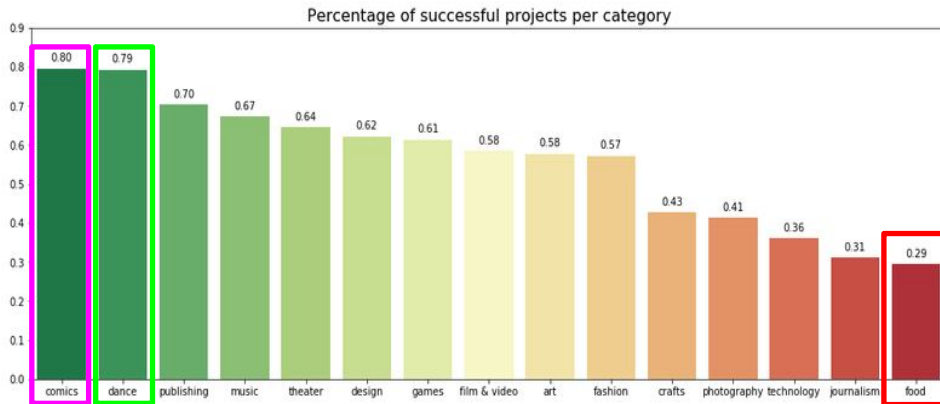
The majority of projects is successful, however the number of projects failing isn't low either.

Success Factor 1: Categories



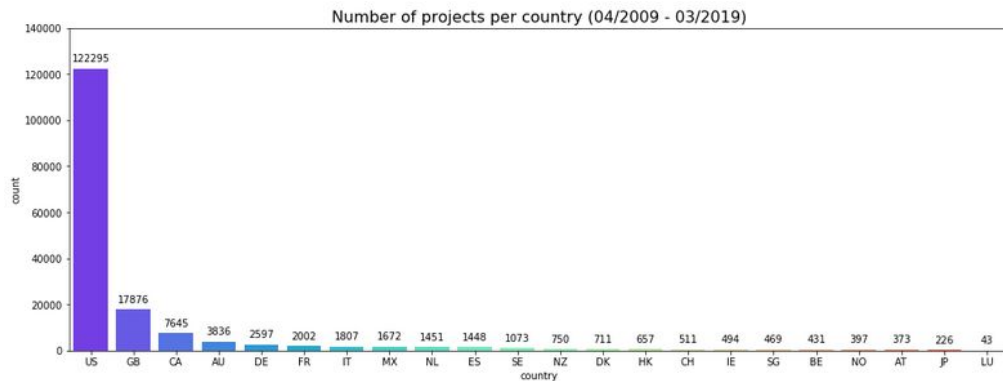
A clear success factor for a project is the category it belongs to. Kickstarter is mostly used for creative projects. This is one of the major fields the platform was created for. The largest amount however is pledged for technology projects.

Success Factor 1: Categories



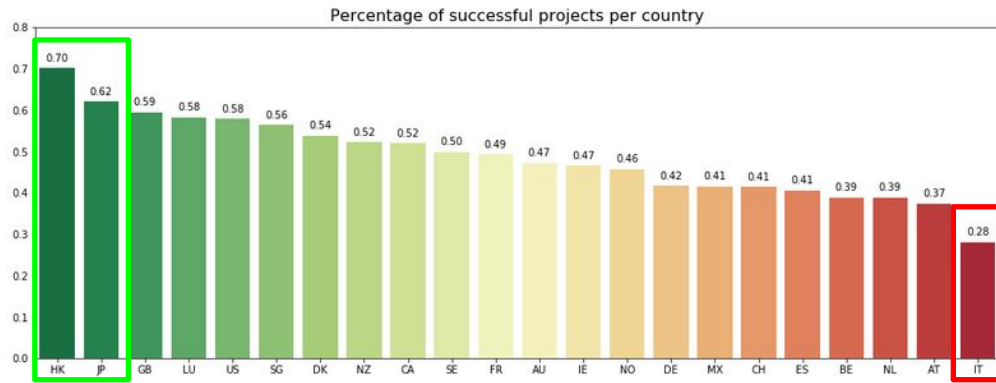
The project success for creative topics is high. Technology projects however mostly fail.

Success Factor 2: Countries



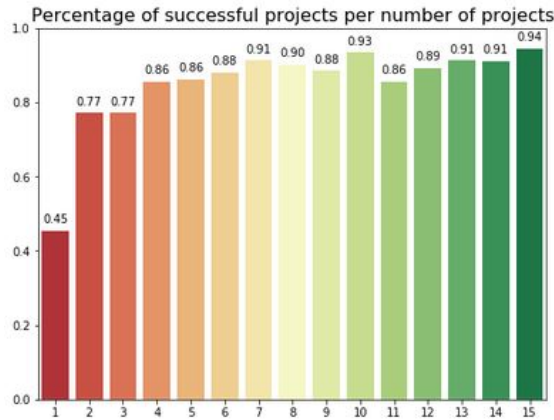
The vast majority of projects comes from the US domestic market. However, in recent years more and more projects come from foreign markets, especially from GB, Canada and asian countries.

Success Factor 2: Countries



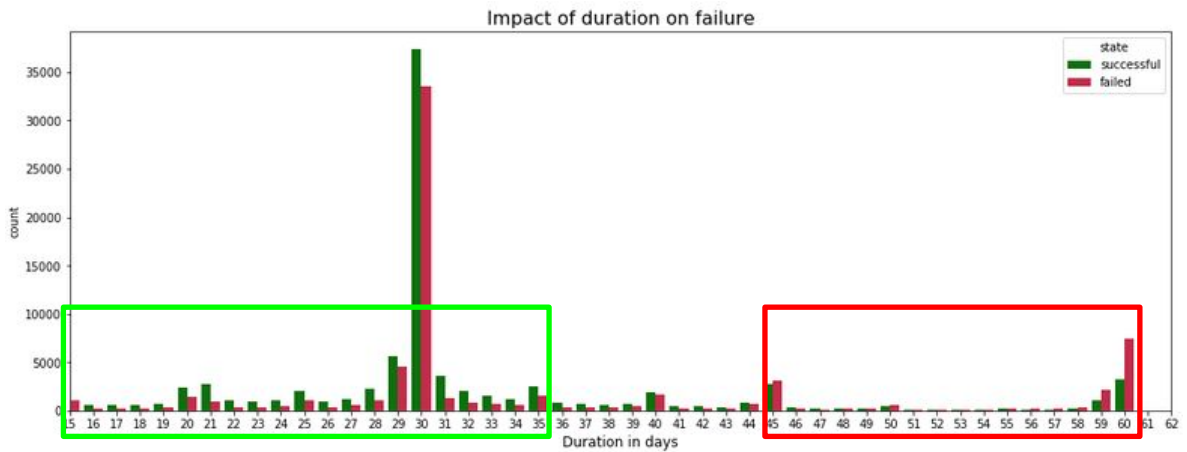
The new asian market participants are very successful. China is not in the game, we assume that China has their own crowdfunding platforms.

Success Factor 3: No. of projects



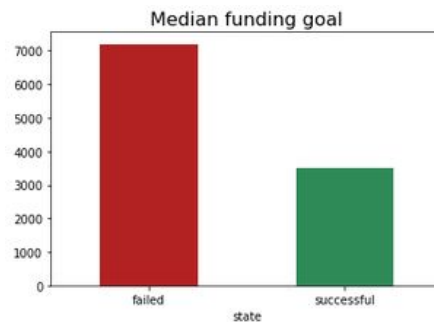
The number of projects launched on Kickstarter by a single person has a clear impact on the chance for success. What can be derived from this data is that you should definitely try again launching a project on Kickstarter when you fail. The change that the second project will be successful is pretty high.

Success Factor 4: Duration



An analysis of the project duration reveals that most of the projects have a funding goal of 30 days. If a project is not successfully funded within 30 days, the chance of missing the funding goal is very high. This can be clearly seen in the graph when the funding timeframe is prolonged to 60 days.

Success Factor 5: Funding goal



High funding goals have a significantly higher chance for failure. This is also due to the fact that higher funding goals are mostly necessary for technology projects, that tend to fail as we have seen earlier.

Prediction

Accuracy: 84%

(number of correct predictions)

Precision: 84% up to 87%

(correctly predicted success)



For the prediction of project success or failure a couple of different machine learning algorithms have been applied, delivering the following results:
84 % prediction with a normal random forest, 86% with a random forest with PCA and GridSearch (loooong), and 87%precision for XGBoost

Recommendations

Optimizing success for project owners:

- Small and short projects tend to do better
- Creative categories
- Technical categories don't do well (Avoid)
- Get the quality up so staff spotlights you

Recommendations for business case 1: Crowdfunding a project

Recommendations

How to identify promising projects as a pledger:

sorry Italy

- Location: Hongkong, Japan, Great Britain (avoid Italy)
- Users with Kickstarter experience tend to be more successful
- realistic funding goal
- Not too long duration for funding



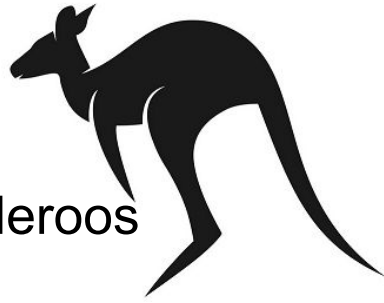
Recommendations for business case 2: Supporting a project

Future Work

- Get more data
- Further data analysis:
 - Name and description of projects
 - Timeframes
- Analyse market trends

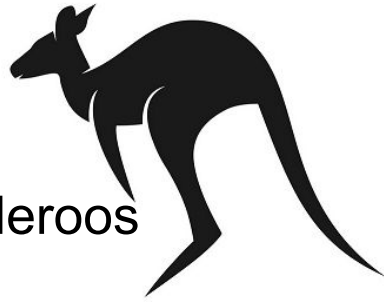
The following points could not be addressed due to the limit amount of time for this project (3 days). In case additional time can be used for the project, these are the points to work on.

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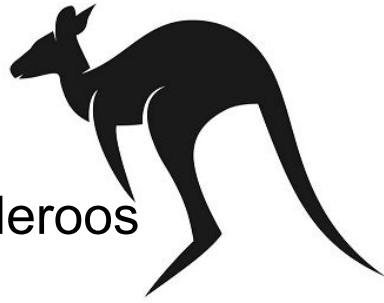
Questions?

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Thank you!

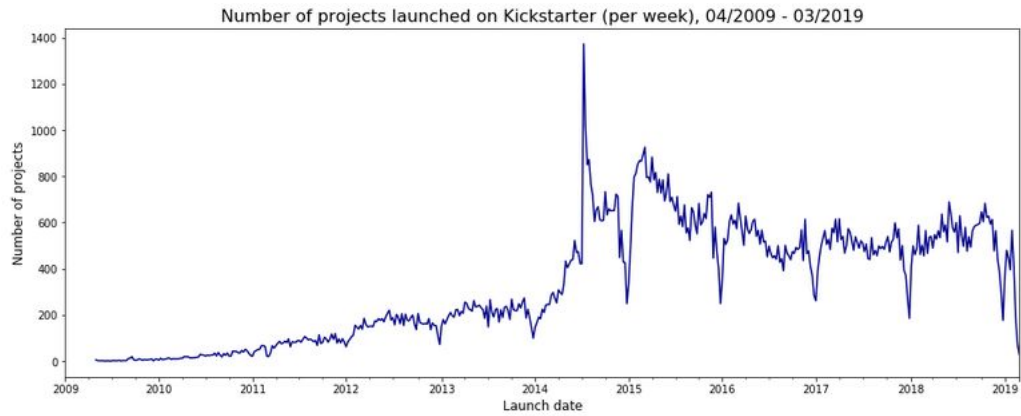
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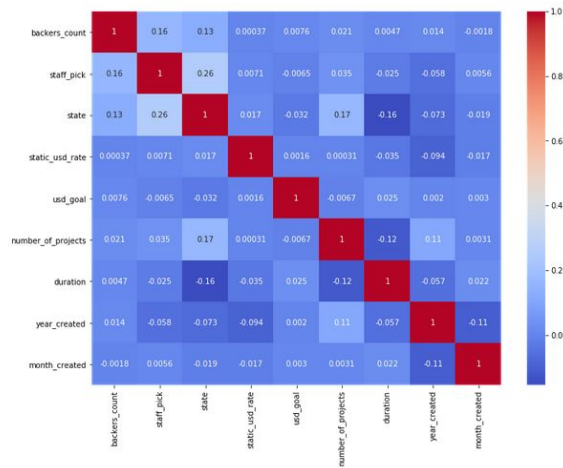
Appendix

A1

Appendix



Appendix



Appendix

Most important features used in the classification models:

- staff_pick
- usd_rate
- usd_goal
- duration
- number of projects
- categories