

Kickstarter Campaigns

Predict and Avoid Failure

Atrin Sarmadi - Metis Classification Project

Kickstarter

Discover Start a project

KICKSTARTER

Arts Comics & Illustration Design & Tech Film Food & Craft Games Music Publishing

Search Log in

Creative work shows us what's possible.
Help fund it here.

WITHIN THE LAST DAY

35 projects funded	\$2,971,286 towards creative work	31,287 backings
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FEATURED PROJECT

Tuli! Tuli! Tuli!

A documentary-meets-mockumentary about late American counter-culture

RECOMMENDED FOR YOU

- Julian Hawthorne's Strange Recollections of...
2,940% funded
By retrovirusrecords
- The Happy Halloween Tarot deck 🎃
1,564% funded
By Soni Graves
- LANDBACK.Art
103% funded
By LANDBACK.Art

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Our mission is to help bring creative projects to life.

Since our launch, on April 28, 2009,
20 million people have backed a project,
\$6.2 billion has been pledged, and **210,508**
projects have been successfully funded.

STATS

Kickstarter Revenue:

5% of funds pledged for
successful projects

Failed Projects:

23% of projects since
March 2020 have failed



STATS

60 days preparing campaign page

32 days of campaigning and raising funds



Methodology

Goal

Build a classification model that predicts the projects that are more likely to fail

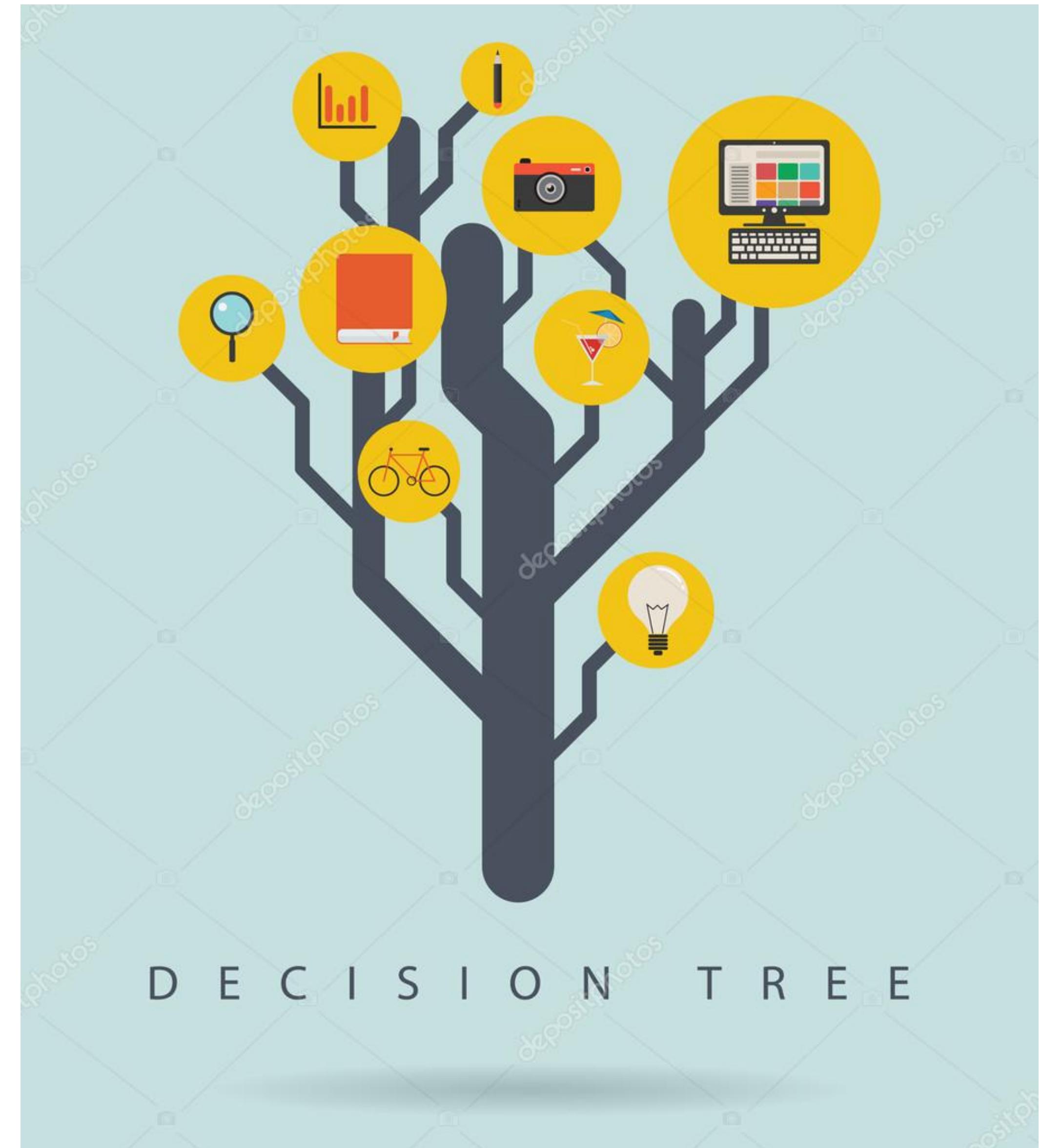
Impact

Identifying and adjusting failing projects can increase the success ratio

DATA

1.2m projects, 39 attributes

Scraped by Web Robots



Classification Methods

- KNN
- Logistic Regression
- Decision Tree
- Random Forest
- XGBoost

matplotlib



seaborn



pandas



Metrics

- F1

A combination metric that takes recall and precision into account

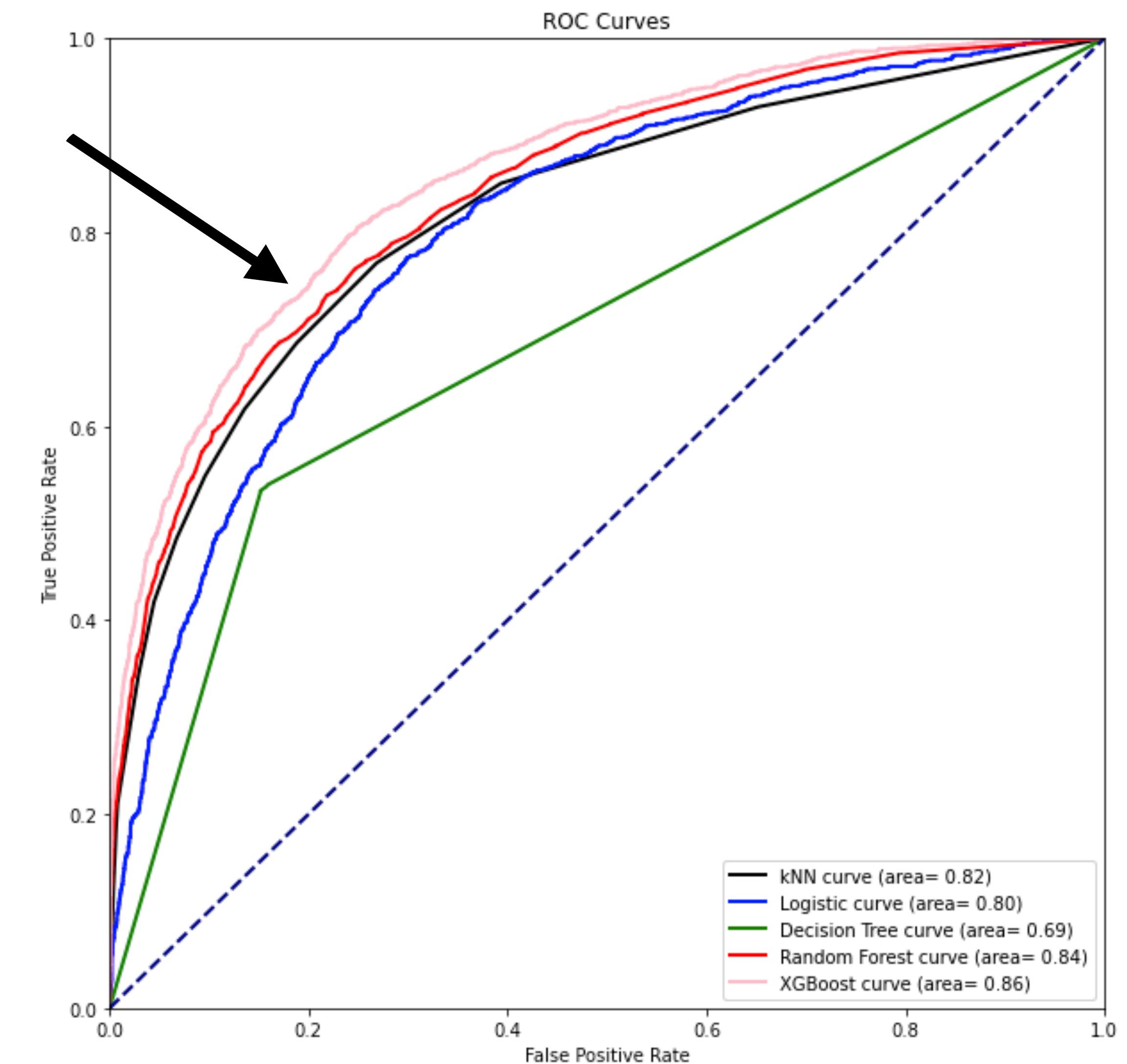
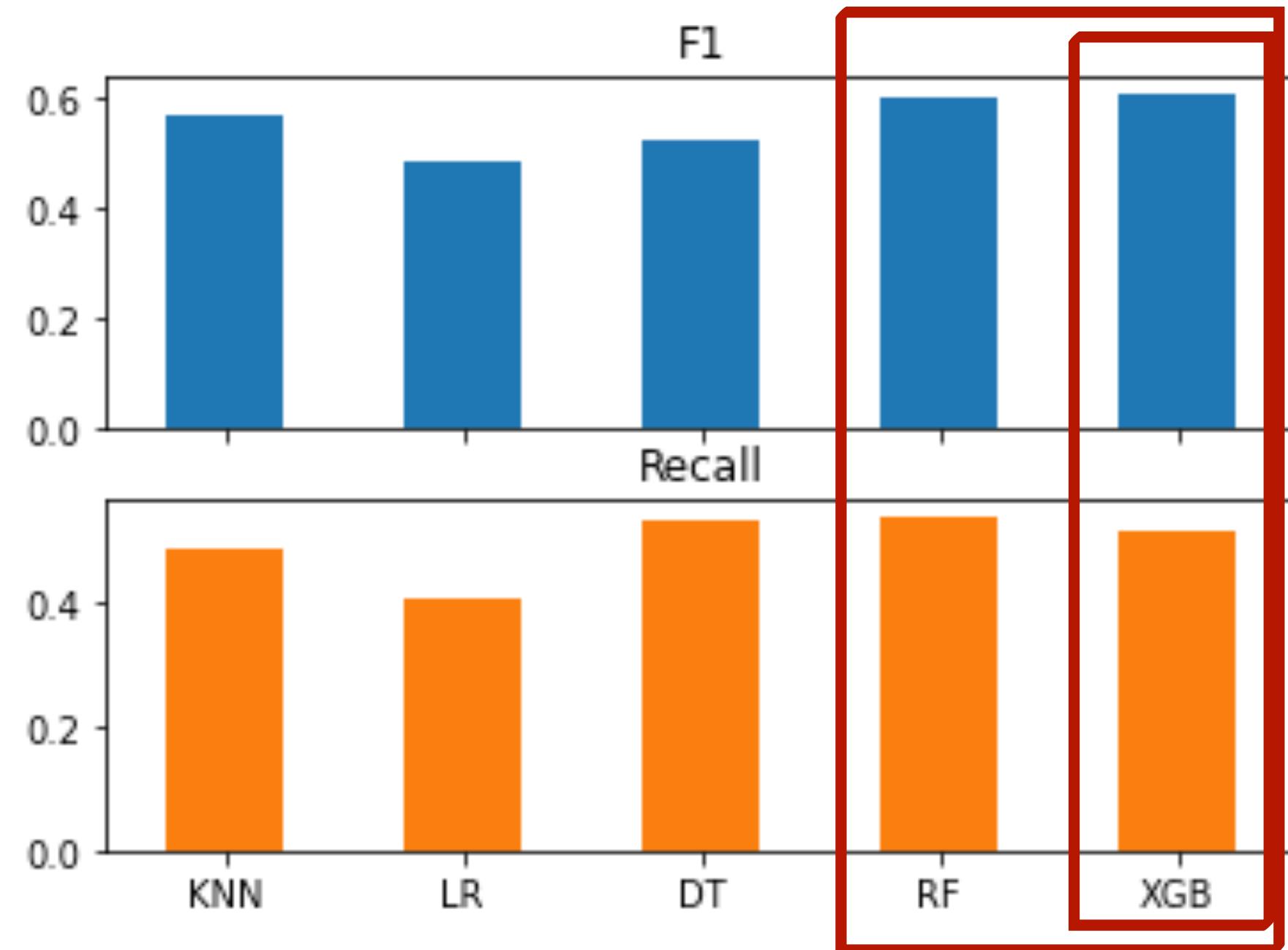
- Recall > fraction of relevant instances that were retrieved
- Precision > fraction of relevant instances among the retrieved instances

- ROC/AUC curve

A visualized comparison metric to find best performing classification method

Results

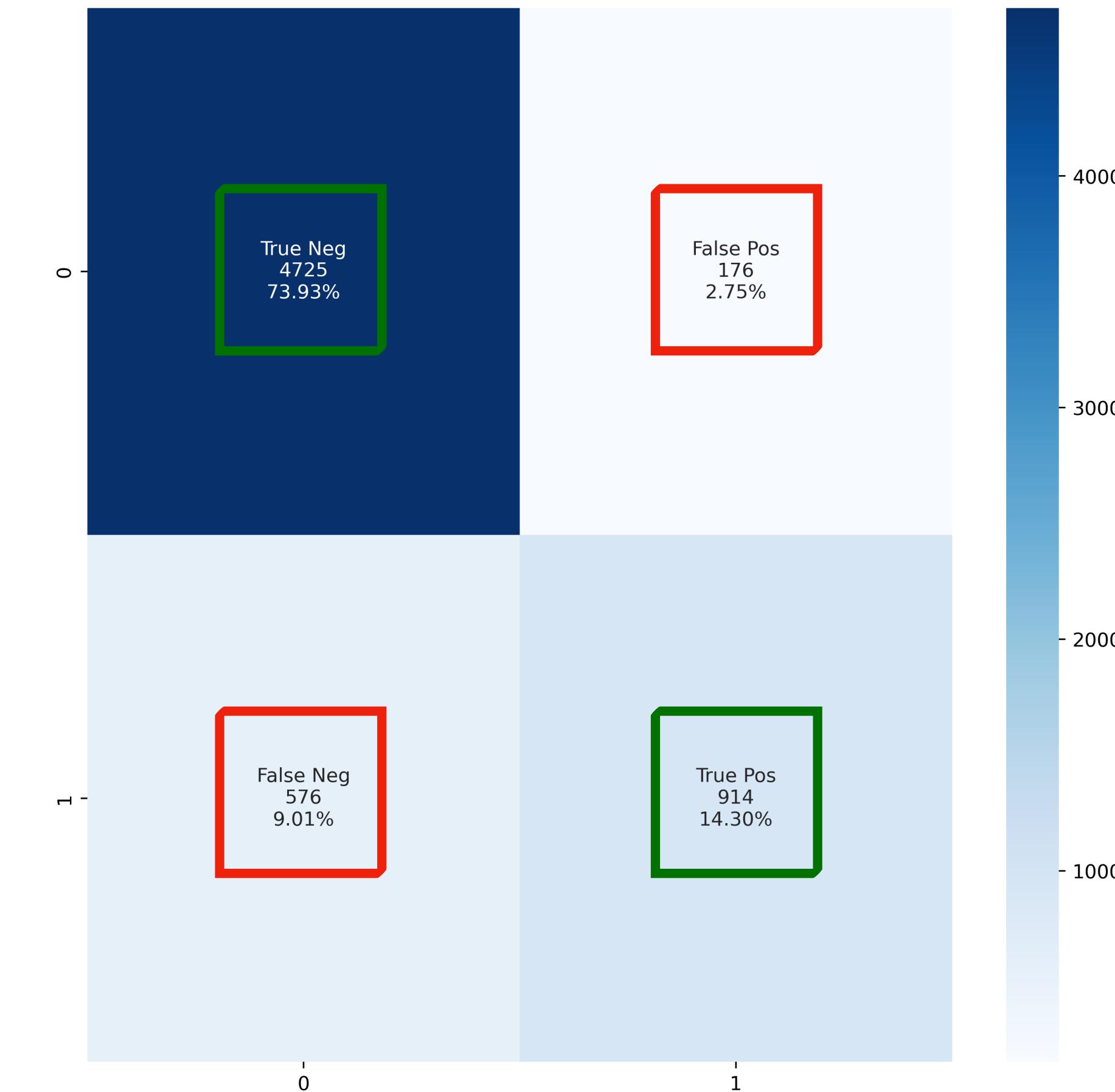
Model Comparison



XGBoost

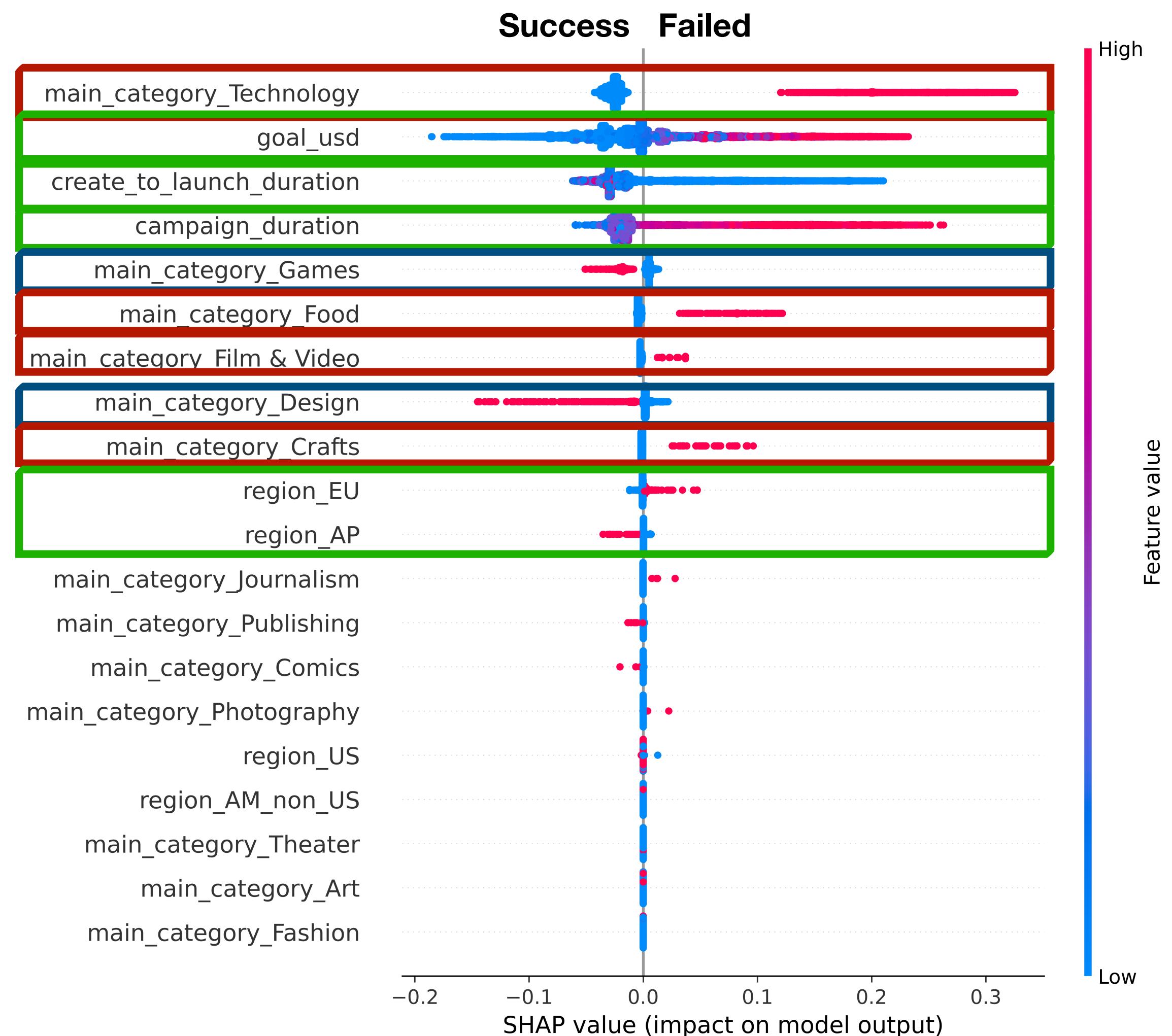
Final Model Test Results

	Baseline Model (Logistic Regression)	Final Model (XG Boost)
F1	0.52	0.71
Recall	0.42	0.61
AUC	0.79	0.92



Feature Importance

- Technology, food and craft projects have low chance of success, unlike design and games projects
- Lower funding goals have higher success rate
- Faster creation time improves chance of success
- Projects based in Asia and Pacific have higher chance of success, unlike projects in Europe



Future Work

- Improve model
 - Decrease data imbalance
 - More hyperparameter tuning for XGBoost Model
- Update dataset regularly, interests and stats keep changing
- Build a soft classification model that can tell which projects to prioritize adjusting