

WHAT MAKES A GOOD GAME?

Jacob Prebys



MISSION

To combine video game reviews with plot summaries and gameplay information, and use natural language processing techniques to predict critical reception



DATA

THE REAL STUFF

BUILDING OUR DATASET

METACRITIC

Professional reviews

User reviews

ESRB Ratings

WIKIPEDIA

Plot summaries

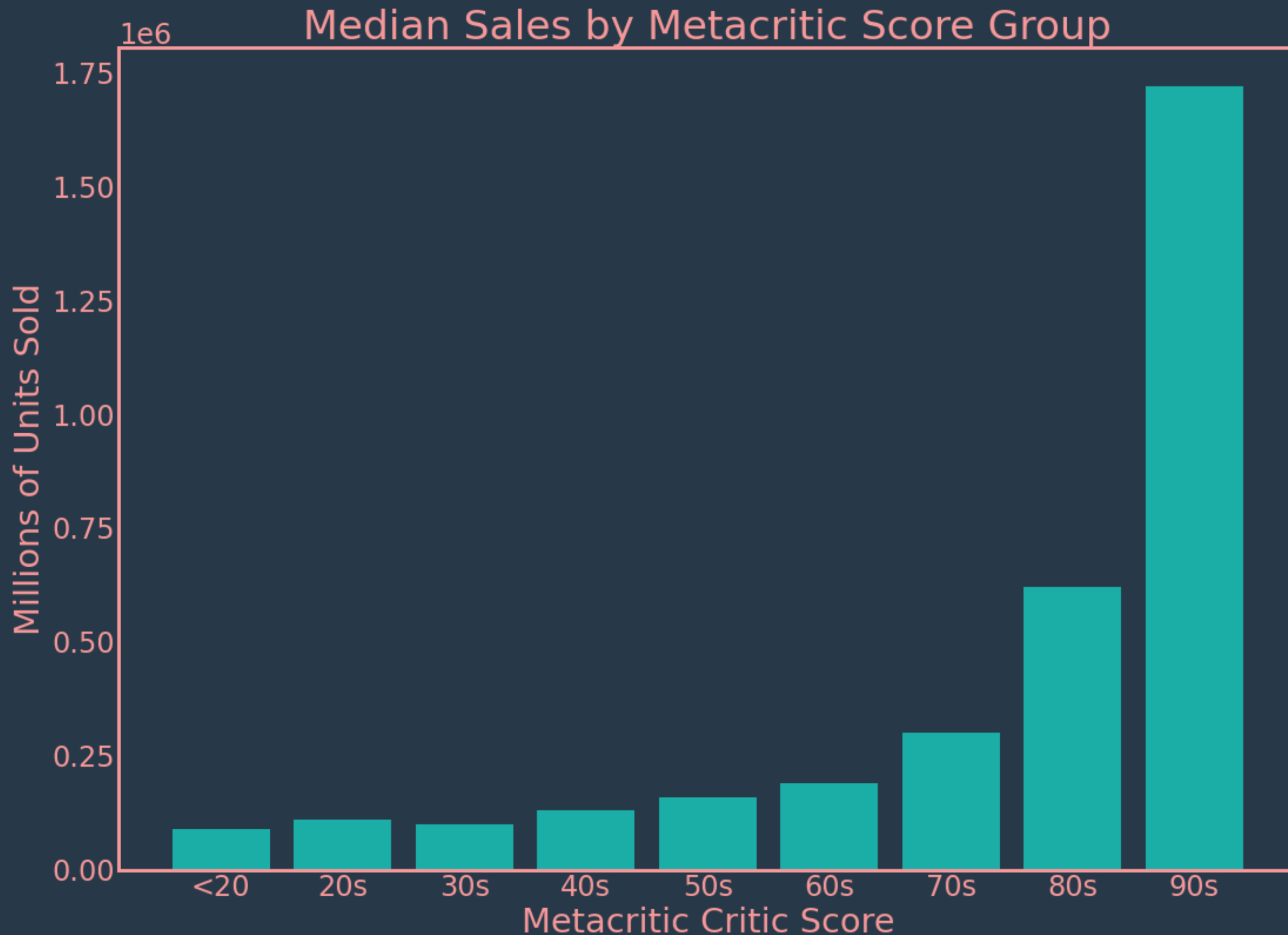
Gameplay details

VGCHARTZ

Global/regional sales

Release dates

5100+ complete entries



TARGETING
CRITIC
SCORES

WHO CARES?

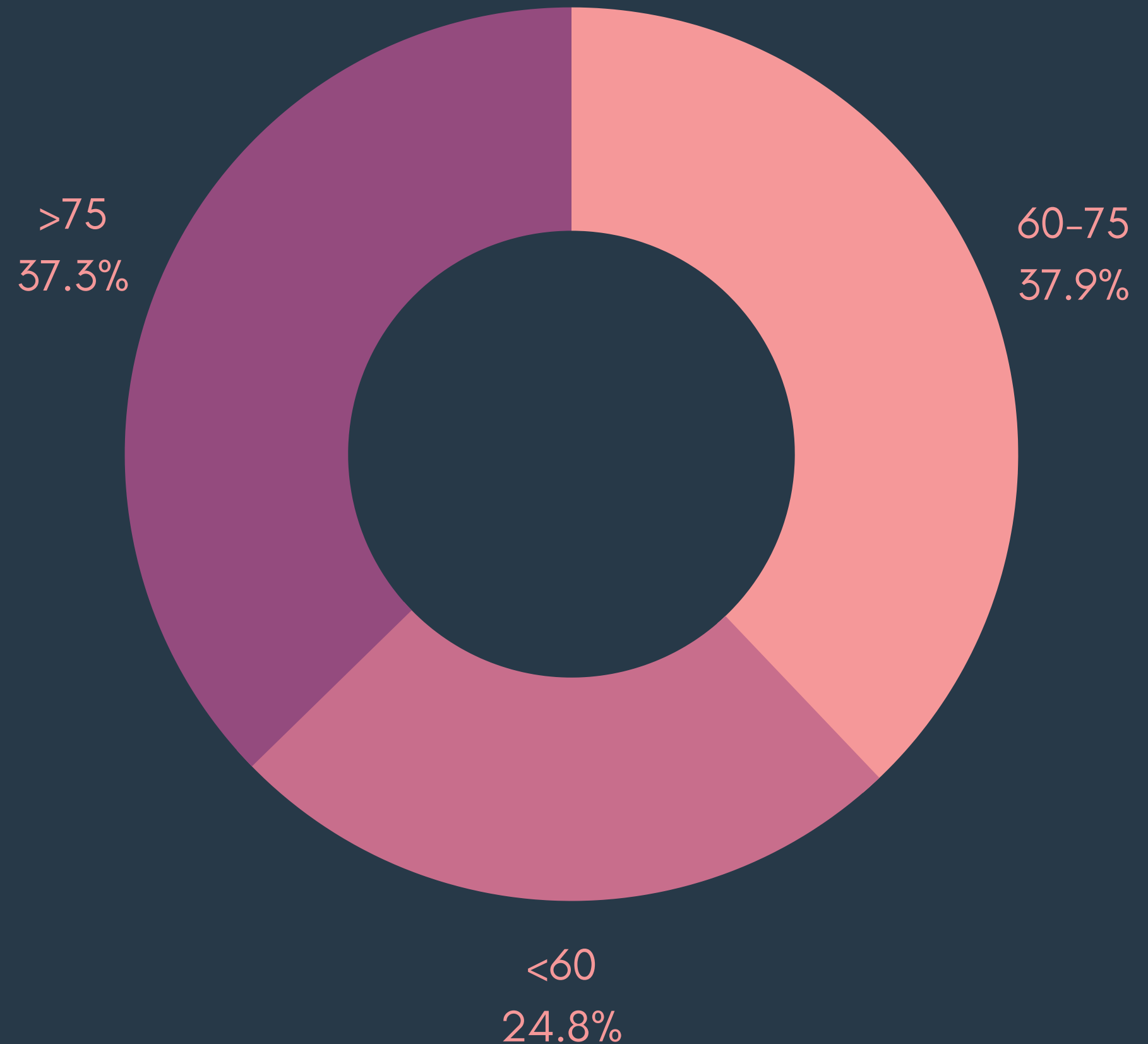
You care!

Higher critic scores
will raise your global
sales potential

MAKING CLASSES

We turn our problem
into a classification
by binning the review
scores into three
classes of success

GAMES BY RATING CLASS



Text Processing



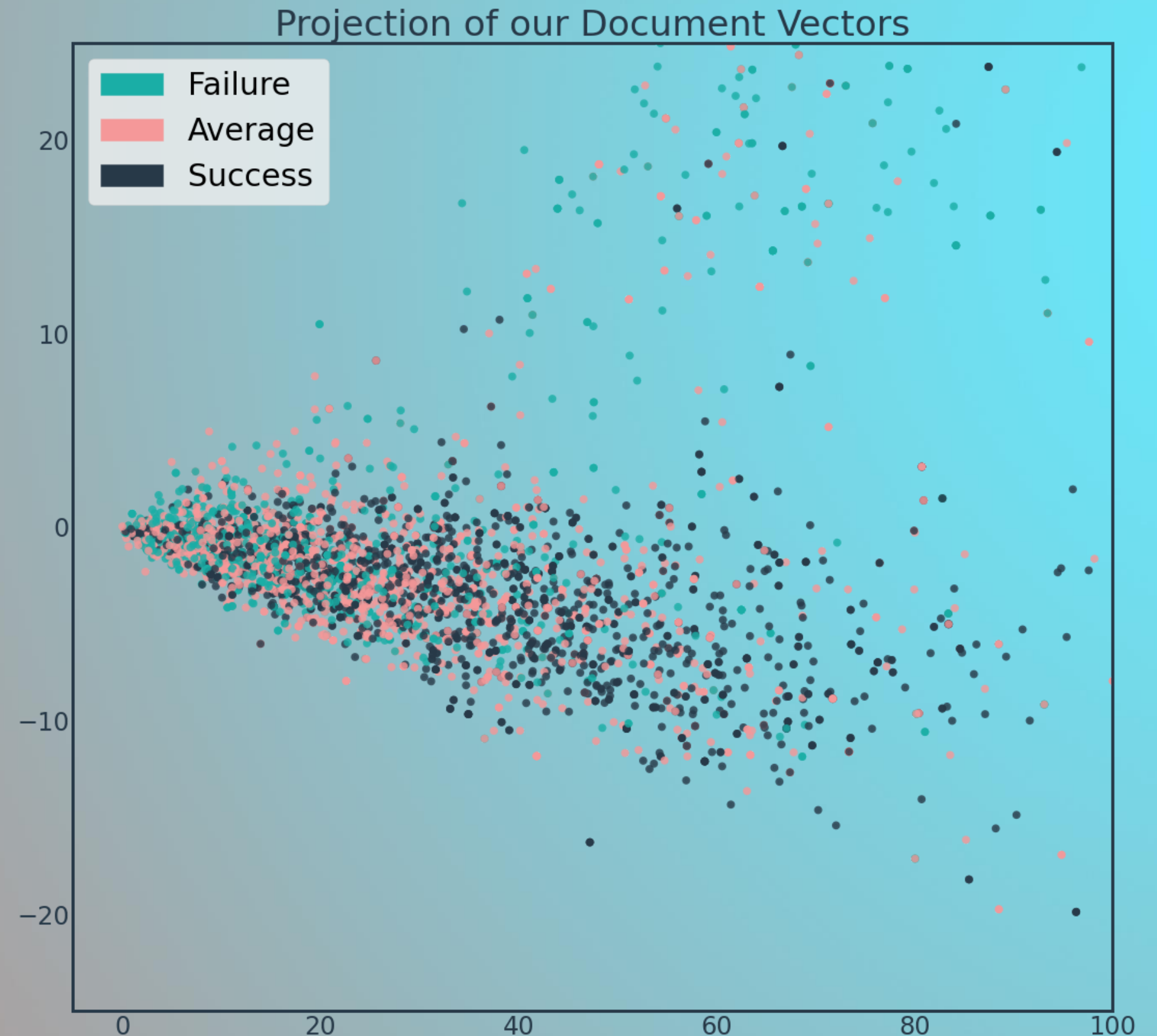
LEMMATIZATION

Reducing words to their roots



VECTORIZATION

Turning the game descriptions into numerical data



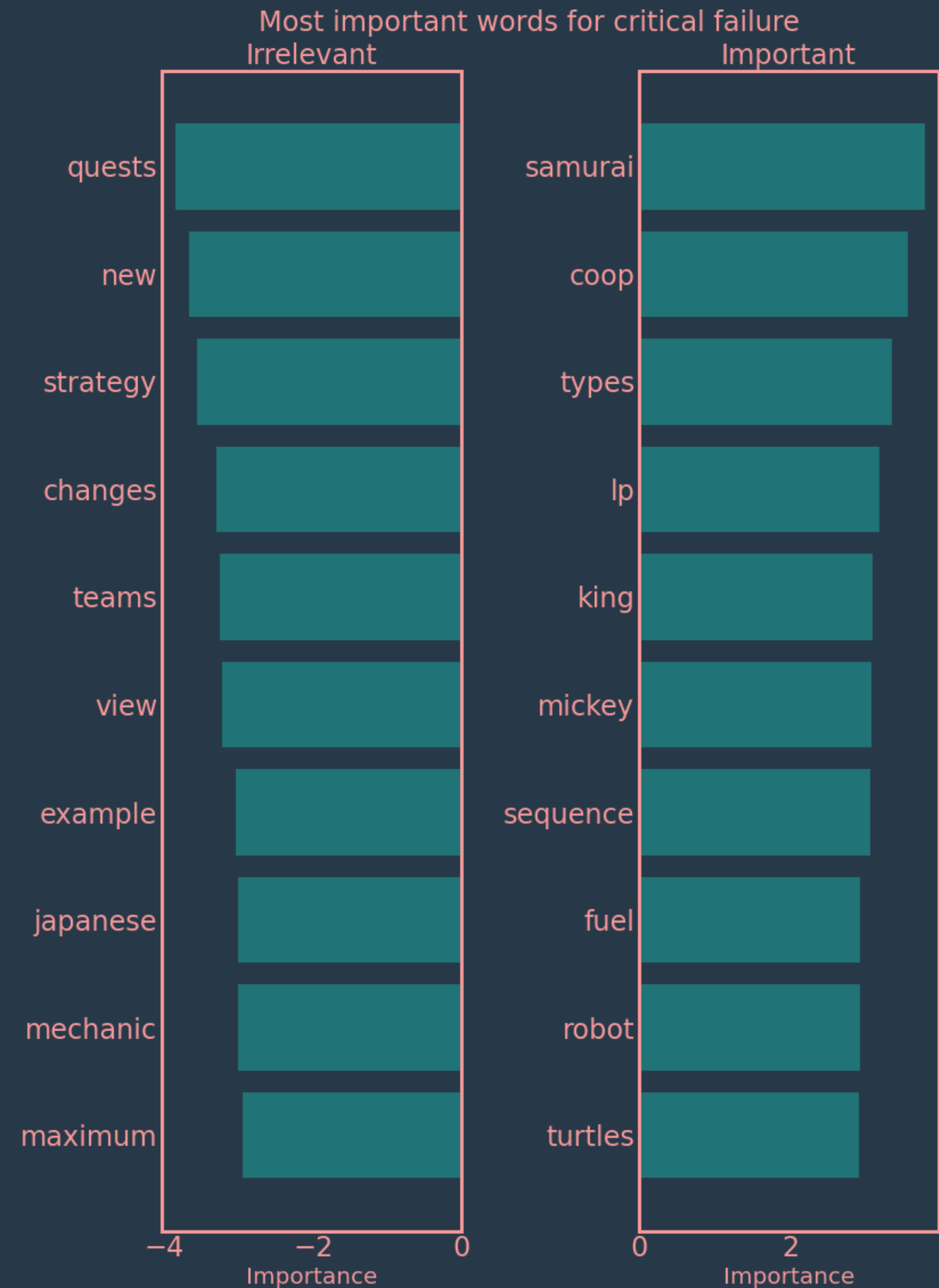
MODELING

THE GOOD STUFF

THE MODEL SO FAR

- Logistic Regression
- Balanced class weight
- Still has high variance

68% accuracy



FEATURE ENGINEERING

- Better text preprocessing
- Use Google Word2Vec

ALGORITHM CHOICE

- Make XGBoost work on my computer
- Investigate CNNs with Word2Vec

DEPLOYMENT

- Develop a web application
- Design recommender system



FUTUREWORK

Contact Info



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GITHUB

[jprebys](https://github.com/jprebys)



LINKEDIN

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