

# Set Up For Success

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# Background on the Oscars

## **What are the Oscars:**

- Also known as the Academy Awards
- Annual ceremony to recognize the film industry, founded in 1927
- Currently 23 recognized award categories

# Problem Summary

## **Objective:**

- Is to provide insights to producers and production companies who want to increase their chances of winning an Oscar in at least 1 of the 23 award categories.

## **Why it matters:**

- Increases film's visibility, profitability, and career impact for both the cast and crew
- Help guide creative decisions early in the filmmaking process

# Problem-Solving Approach

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## **Data Collection:**

- We gathered 2 different datasets that contained varying information regarding movies who were nominated and won (genres, runtime, directors, etc)

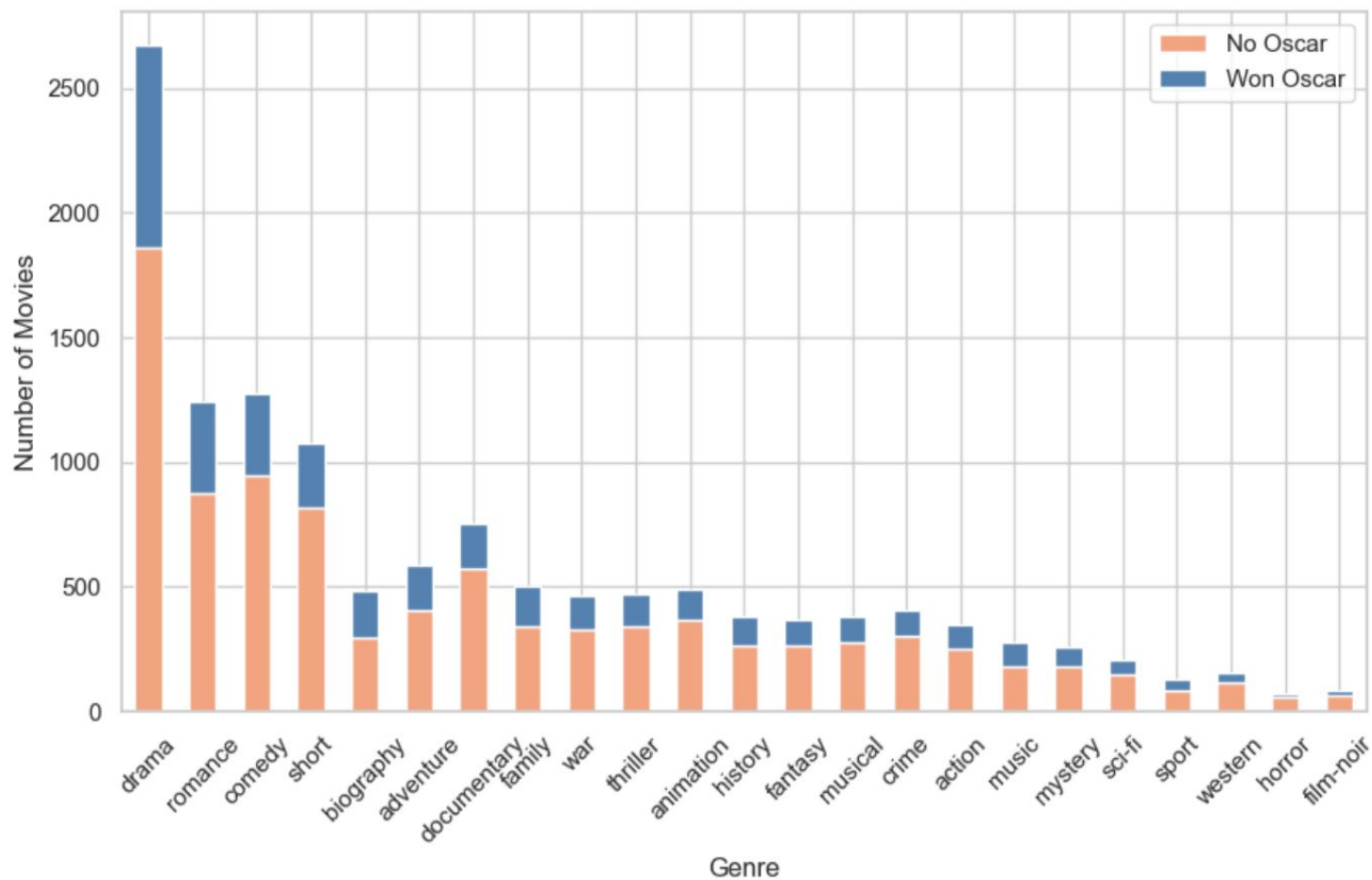
## **Data Preprocessing:**

- Removed unnecessary columns & cleaned the text
- Mapped award categories
- Encoded categorical variables (award category & genre)

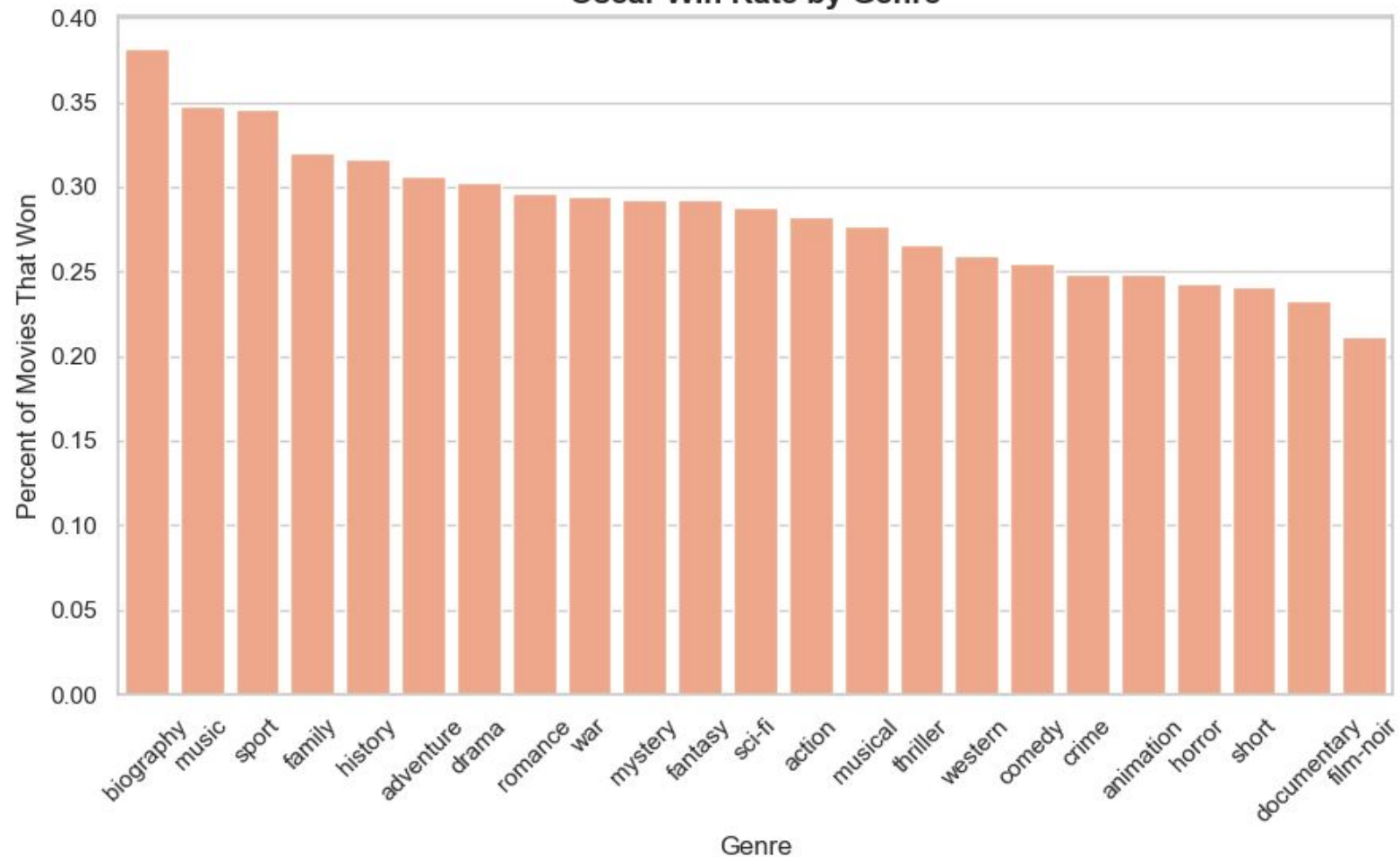
## **Model:**

- Build a classification model that predict Oscar successes and find impactful features that can be recommended to our audience

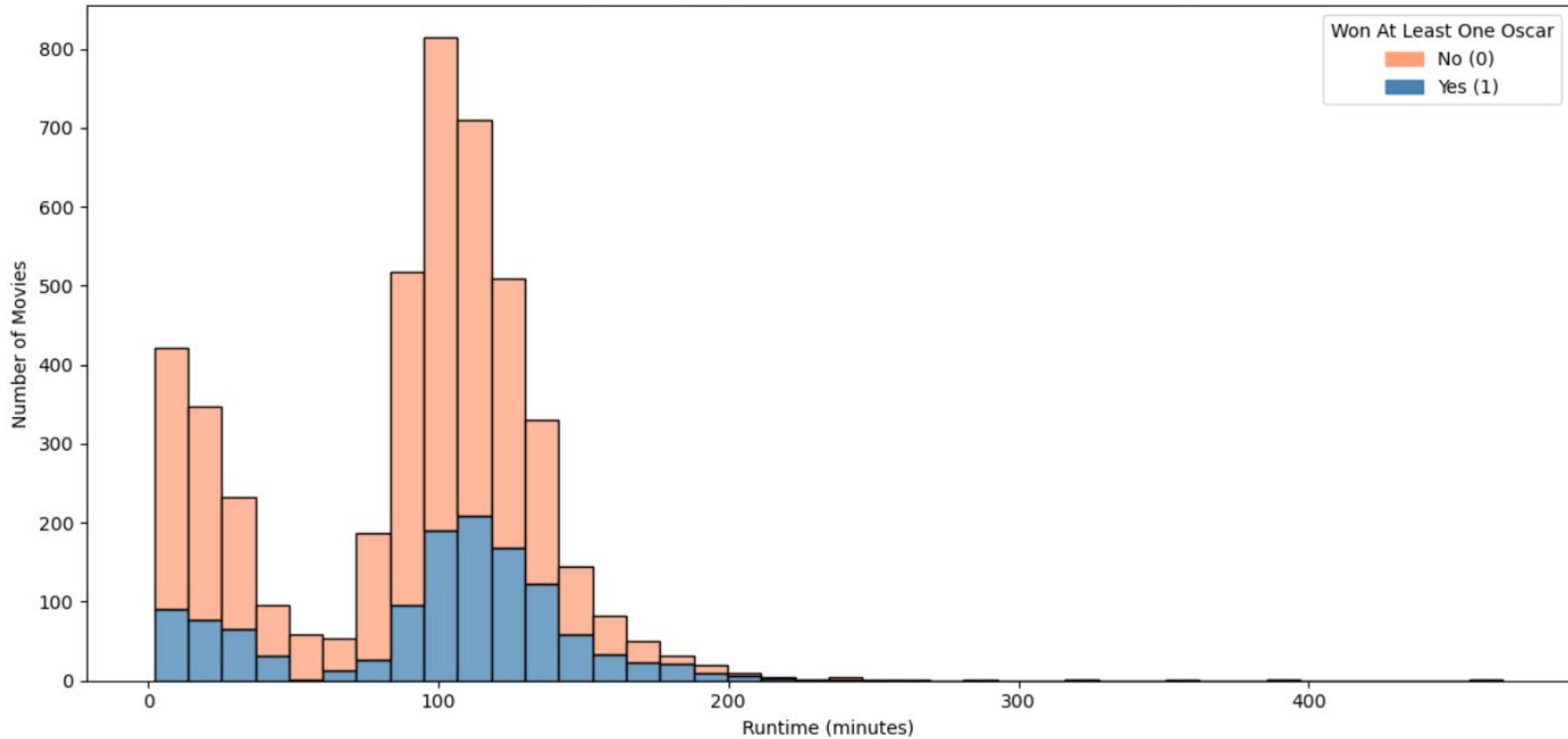
## More Oscar Competition in Drama, Romance, Comedy, and Shorts



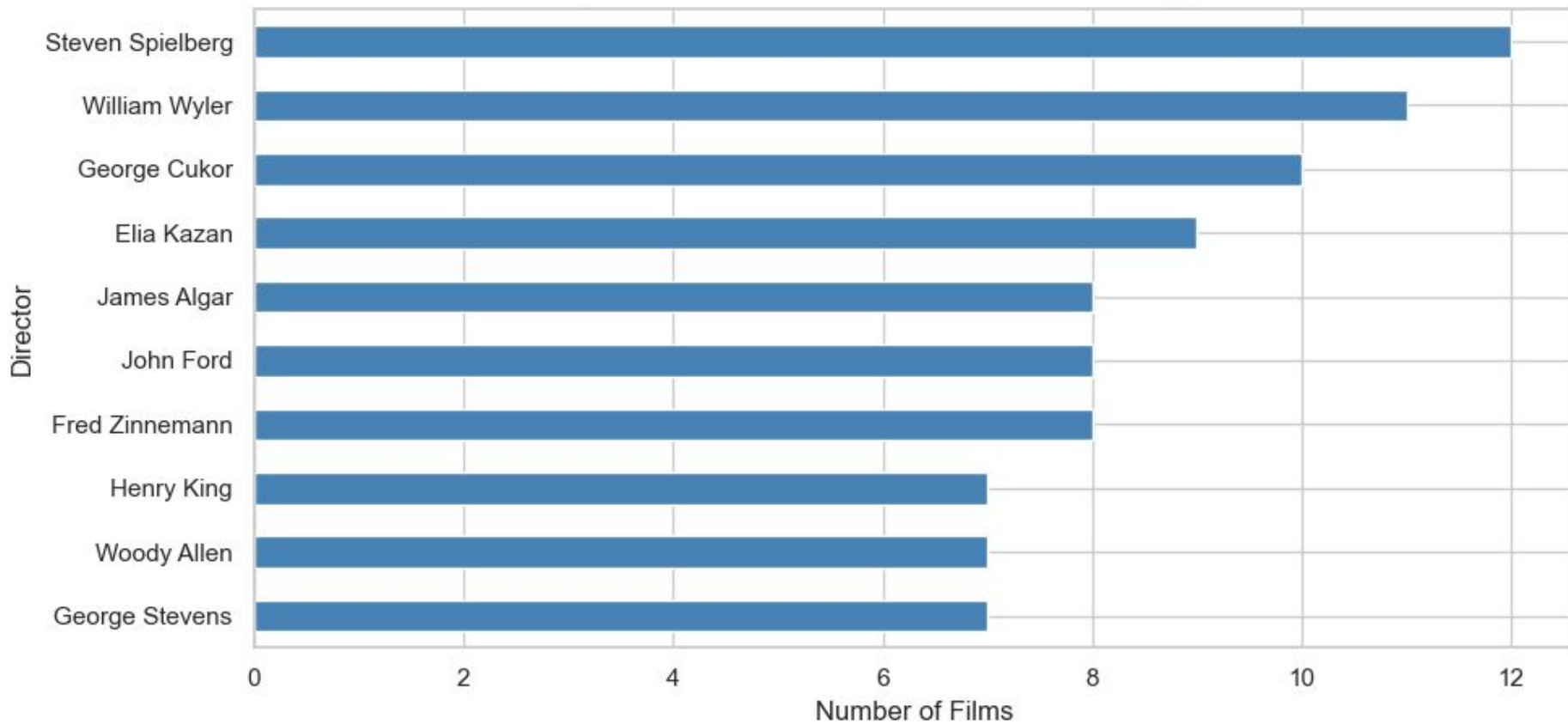
Oscar Win Rate by Genre



Oscar-winning films (blue) have a runtime of 120-150 minute range.

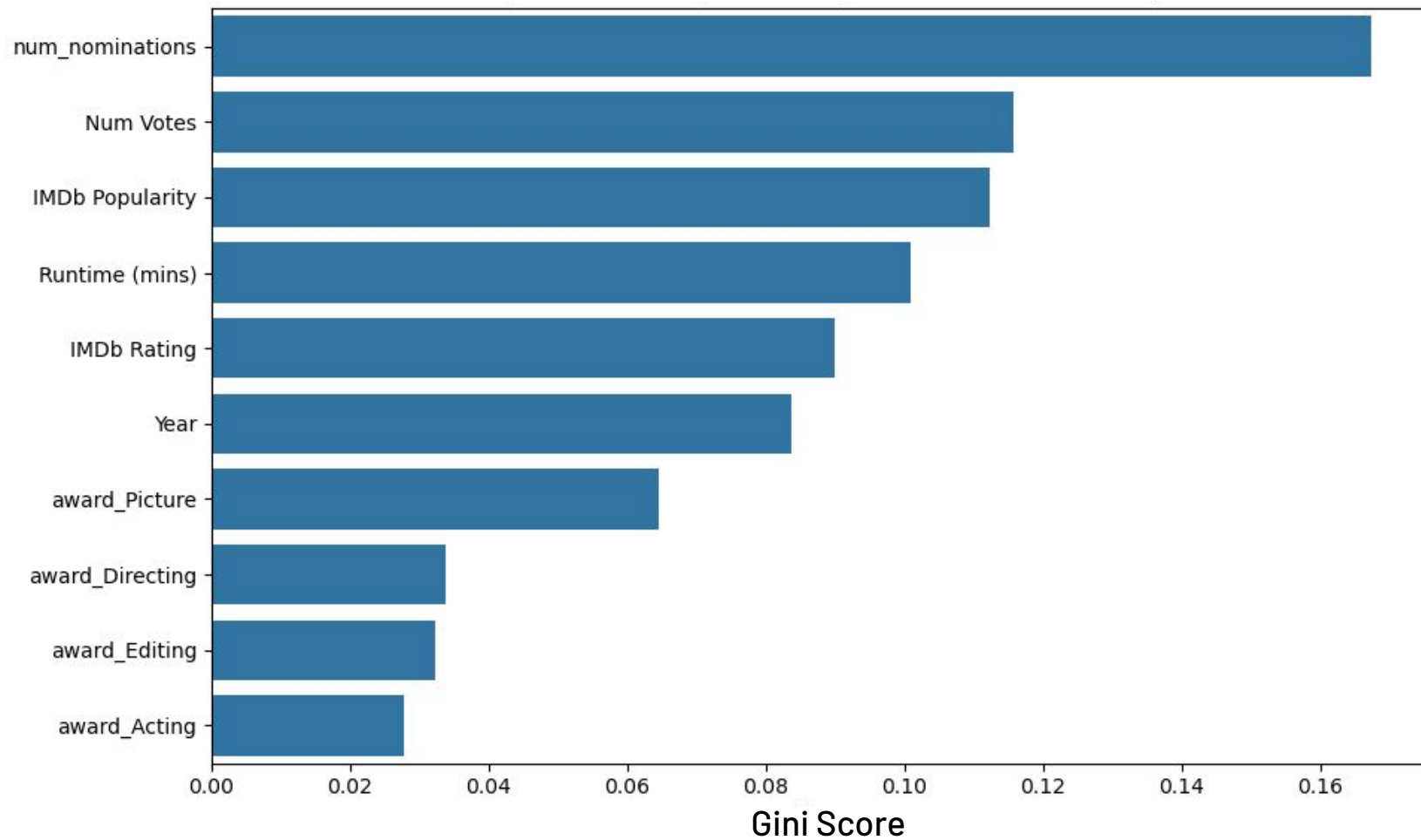


## Top Ten Directors to Hire





The Number of Nominations is the Highest Correlated Feature



# Model Evaluation

**Baseline Model:** Score of 27% predicting class 1 (oscar win)

**Chosen model:** Random Forest Classifier

**Challenges:**

- Class imbalance
- Number of observations

**Model Performance:**

- Accuracy: 80 %
- F1 Score: 62 %

# Limitations of the Process

## **Data Limitations:**

- Properly loading the downloaded data
- Incomplete messy data

## **Industry Limitations:**

- Bias in the industry

## **External Factors:**

- Marketing
- Timing

# Recommendations/Conclusions

## **Did our model meet our Goals?**

- Base accuracy score: 27 %
- Model accuracy score: 80 %

## **Recommendations for producers and production companies**

- Focus on biography, sport, & music genres
- A movie length ranging from 120-150 minutes
- Hire the top 3 directors: Steven Spielberg, William Wyner, George Cukor

## **Improvements and refinement of model**

- More data features: leading actors, production costs, etc.

# Questions?