

POPULARITY AND PROFIT; ARE THE TWO P'S RELATED?

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OUR DATA

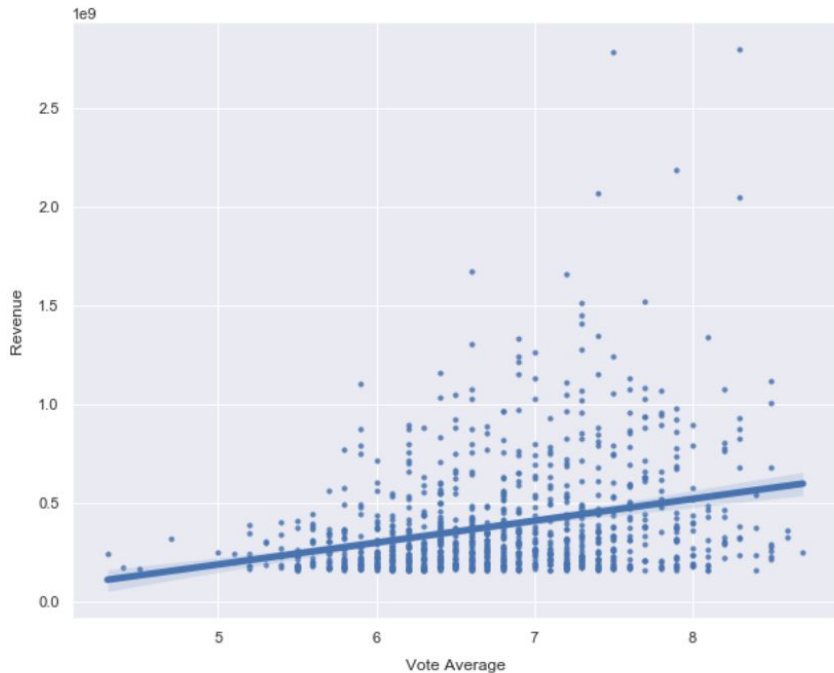
- The Movie Database (TMDb)
 - Used API call to retrieve movie data in JSON format
- Utilized two groups of data from the API:
 1. Top 100 movies from 2019 with the highest revenues
 2. Dataset of 10,000 movies, across all years, sorted by popularity

In [7]: newlist

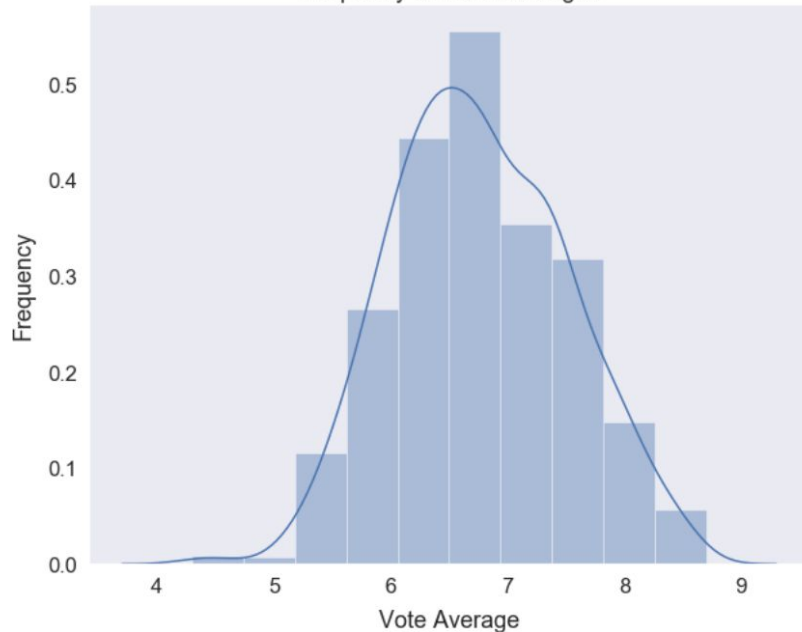
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INSIGHT #1: VOTER AVERAGES AND REVENUE

Correlation Between Voter Average and Revenue



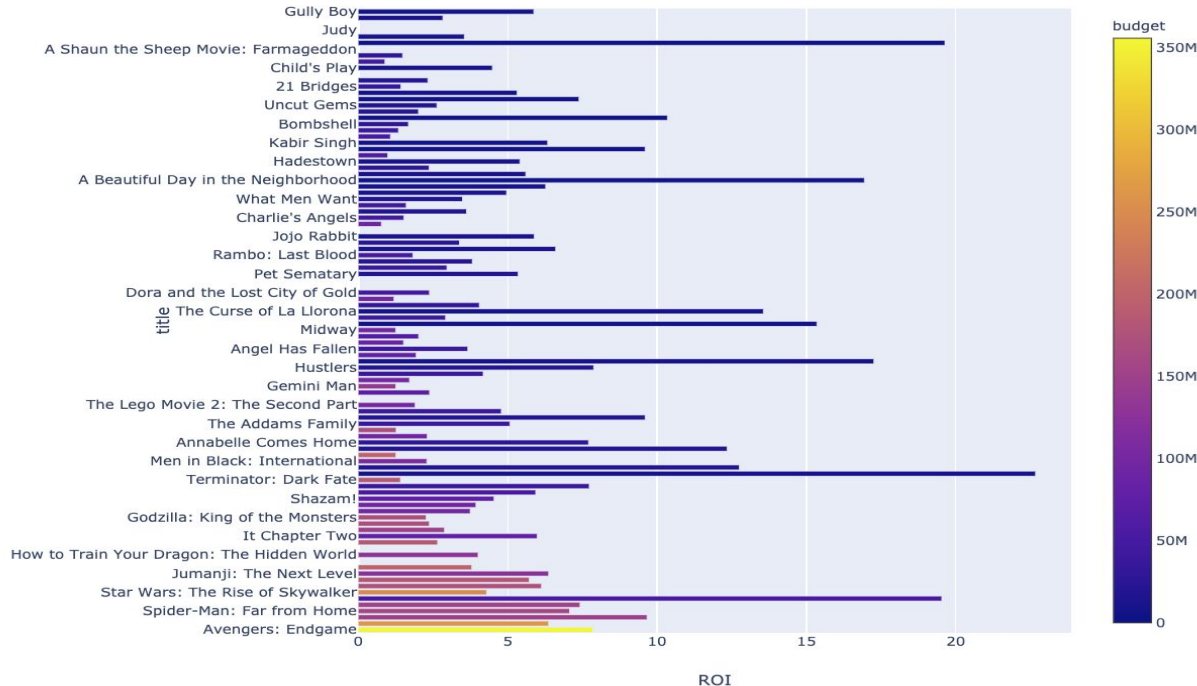
Frequency of Voter Averages



- Films with higher revenues tend to have higher voter averages
- Popular films generally have voter averages that are higher than 5.0 on a 1-10 scale

INSIGHT #2 : RETURN ON INVESTMENT CONTINUED

Budget correlation to ROI -- Highest Revenue Movies 2019



-Parasite was movies with highest ROI for 2019.

- Budget of just over 11 million

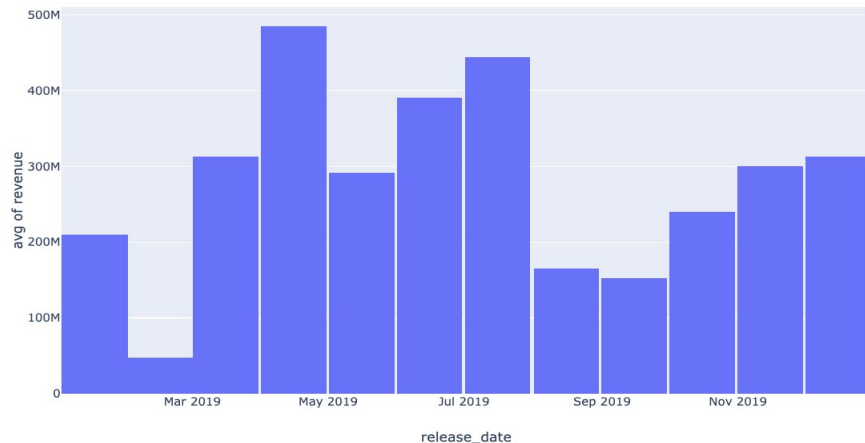
-ROI factor of over 22.

Avengers: End Game was highest in both revenue and budget only had a ROI of 7.85.

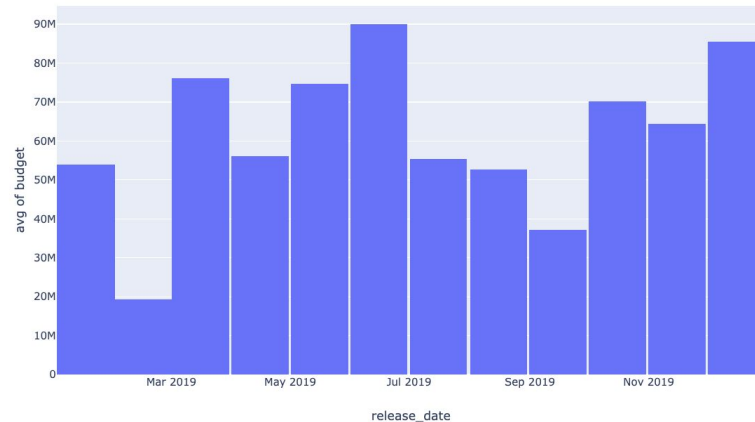
-Revenue and ROI are much different measurements in terms of financial investments

INSIGHT #3 : RELEASE MONTHS

Highest Average Revenue by month for Movies released 2019



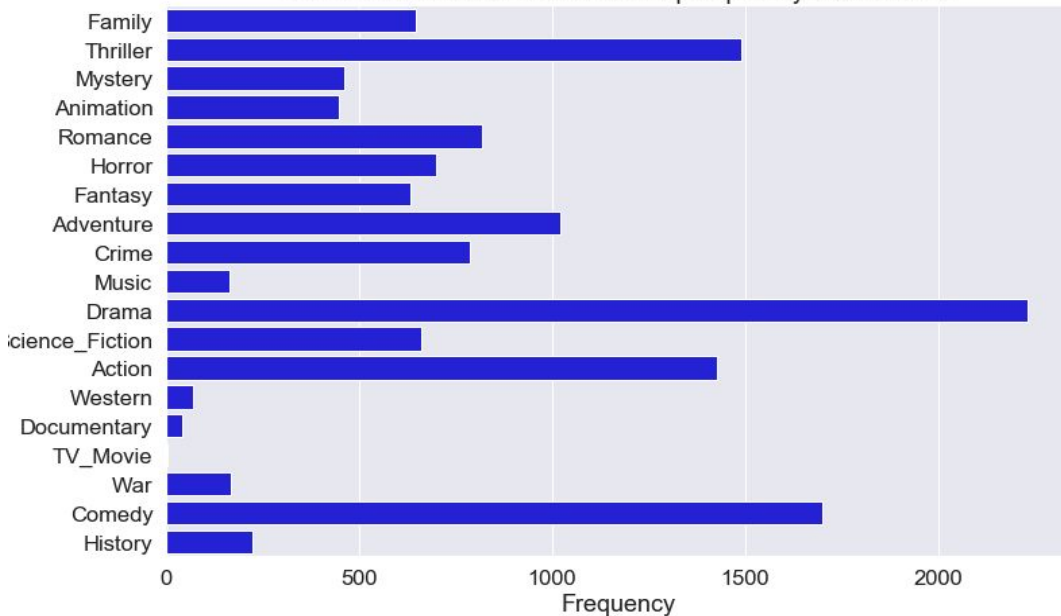
Highest Average ROI by month for Movies released 2019



- Histogram detailing the average revenue per movie for each month in 2019
- April is the highest followed by July.
- The summer and holiday seasons are preferred release dates in terms of revenue.
- Summer and holidays are typically when the highest budget movies are released.

INSIGHT #4: CORRELATION BETWEEN GENRES & POPULARITY

Correlation Between Genres and Top Popularity 5000 Movies



- Drama is the most popular and appeared over 2200 times.
- TV_Movie is the least popular and only appeared 5 times.
- Top 4 popular genres of movie are : Drama, Comedy, Action, Thriller.

CONCLUSIONS

- Popular films with higher revenue have higher vote averages
- While budget and revenue are positively correlated, high budgets does not necessarily mean a high return on investment.
 - Microsoft should look at the impact of budget on both revenue and ROI when making budget and investment decisions
- Microsoft should consider creating movies with popular genres; Drama, Comedy, Action and Thriller

NEXT STEPS

- Additional TMDb API calls
- Compare different subsets of data to solidify our evidence
- Use existing data to calculate further, more sophisticated financial analyses
- Explore other movie related APIs to broaden our dataset; such as the Rotten Tomatoes API

THANK YOU

- Thank you for listening! Please find a list of resources used below:
 - Github: <https://github.com/adinas94/Phase-1-Microsoft-Movies>
 - TMDb Database:
<https://developers.themoviedb.org/3/getting-started/introduction>
- Contact information:
 - Adina Steinman: adinasteinman@gmail.com
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