Phase 1 Project

Microsoft New Movie

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Business Problem

Create a New Movie Studio that Reproduces the Most Successful Movies at the Box Office

Analyze historic movie data to find attributes of a successful movie
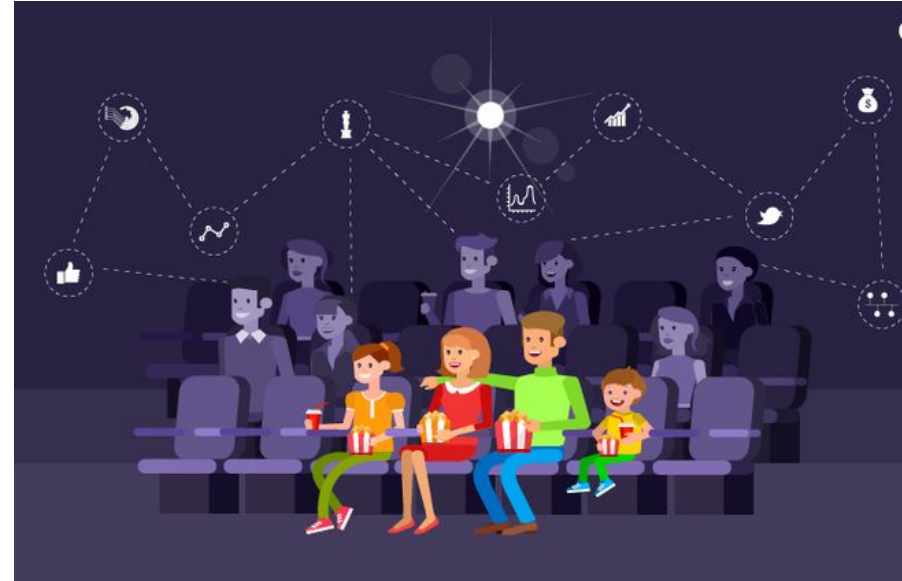Generate recommendations to reproduce that success

Hypothesis

- Movies are more profitable during certain times of the year
- Some genres are more profitable than others
- There is a production budget window that maximizes profit
- Better ratings generate higher profit returns
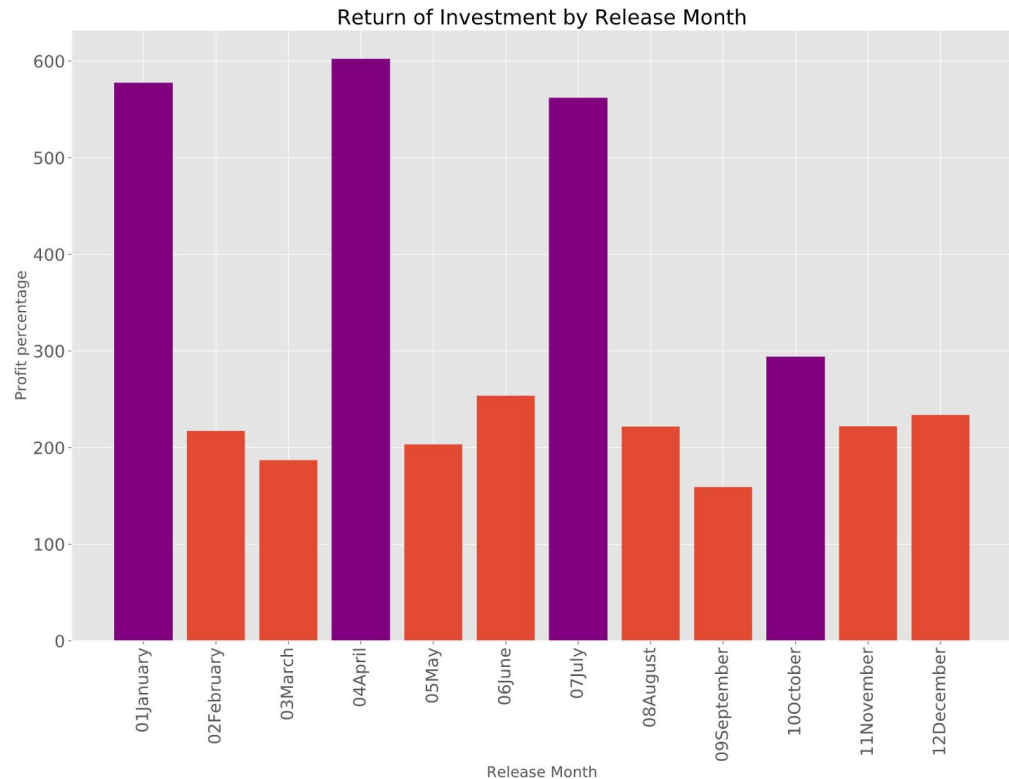

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Data Analysis

- Analyzed the relationships of our hypotheticals with profit
- Plotted and Tested our Data

Release Month

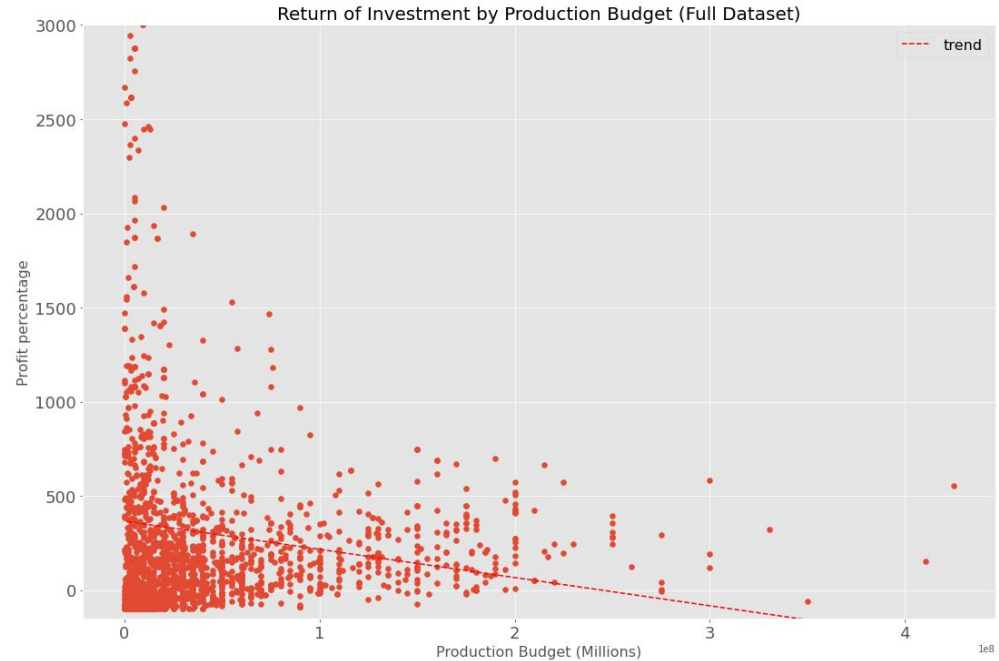- Release Month vs. Profit Percentage (ROI)
- Peak Release Months:
  - January
  - April
  - July
  - October

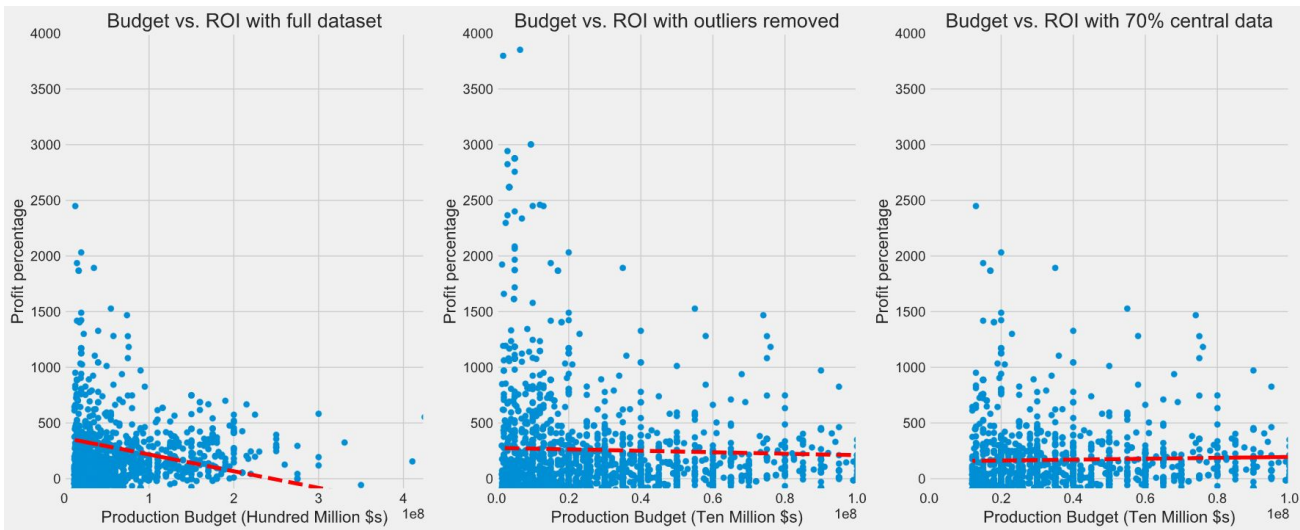Return of Investment by Release Month

Production Budget

- Production Budget vs. Profit Percentage (ROI)
- Initial results show a loss of profit as budgets increase
- Higher production budget =/= ROI

Return of Investment by Production Budget (Full Dataset)
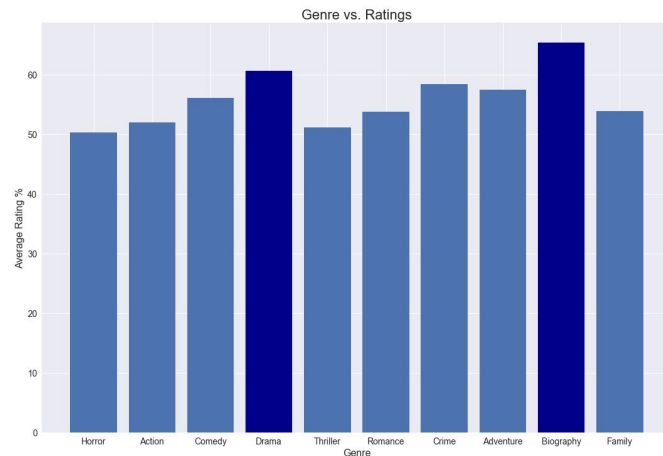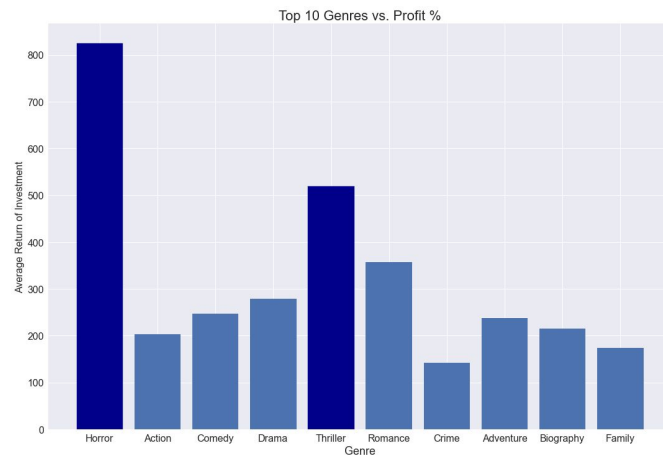
Production Budget

- Removed outlier data
- Found slight positive correlation between budget and profit percentage between 12 mil and 425 mil
- Likelihood of profit is higher in that window

Genres

- Plotted Genre vs Profit Percentage (ROI)
  - If movie had multiple genres, movie was plotted multiple times
- More profitable movies were in the Horror and Thriller genres
- Horror movies also received the lowest ratings
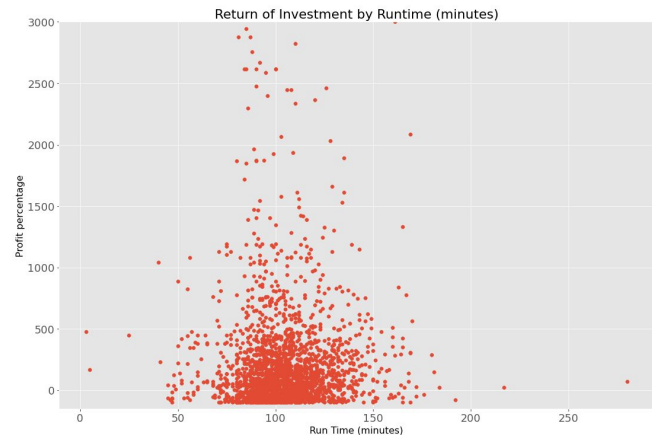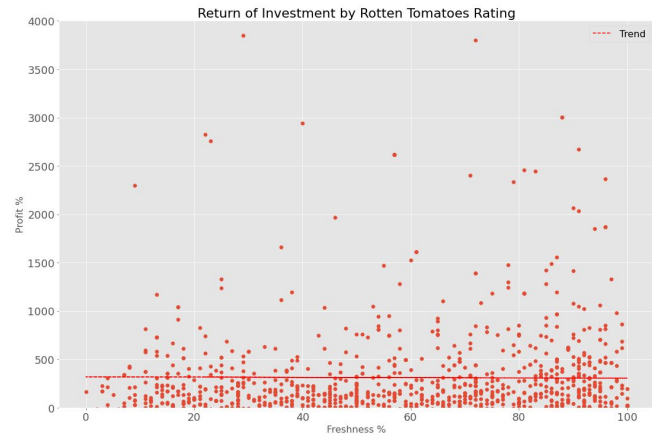 - Very small correlation between ratings and profit

Top 10 Genres vs. Profit %

Genre vs. Ratings

Ratings and Run Time

Overall, the below factors had little to zero impact on profit percentage (return on investment):

01 | Run time

02 | Rating

Return of Investment by Rotten Tomatoes Rating

Return of Investment by Runtime (minutes)

Conclusions

After analyzing all of the available data, we have concluded that the most profitable movies are in the Horror or Thriller genre. The ideal budget range is 12 mill - 425 mill and the movie release schedule is in the month of January, April, or July.

Thank you.