



AI Academy: Learning Pod 1 Capstone Project

Justin Brown, Lorenz Cohen, Nuri David, Ej Donelson, and Prince Nwankwoala

Agenda

1

Computer Vision's Business Goal

2

Data Understanding, Analysis, and Characteristics of Successful Films

3

Recommendations & Next Steps

4

Conclusion

Computer Vision's Goal

To learn what type of films should be produced to reach Computer Visions goal of competing with titans of the streaming industry.



About the Data

Business Relevance: The most important aspect of a movie is the net-revenue it generates. Therefore, we sought to determine what factors contribute to high grossing films.

Properties: Production Budget, Worldwide Gross Revenue, Release Date, Studio & Genre

Database Sources: Box Office Mojo¹, IMDB², Rotten Tomatoes³, TheMovieDB⁴, The Numbers⁵



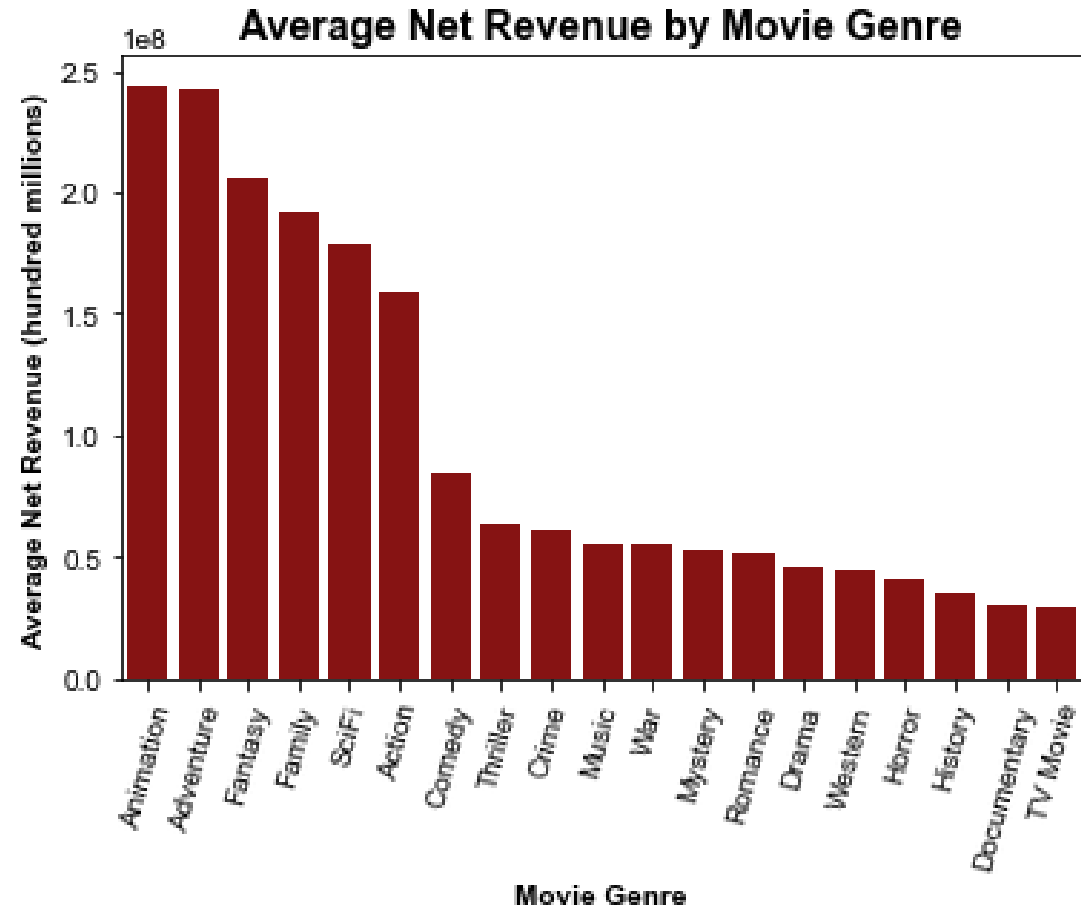
Genres Relation to Profitability

- The data showed that certain genres largely outperformed others.

1

Animation, Adventure, and Fantasy Generate Greatest Returns – First Finding ^{4, 5}

Avoid TV Movie, History, and Documentary



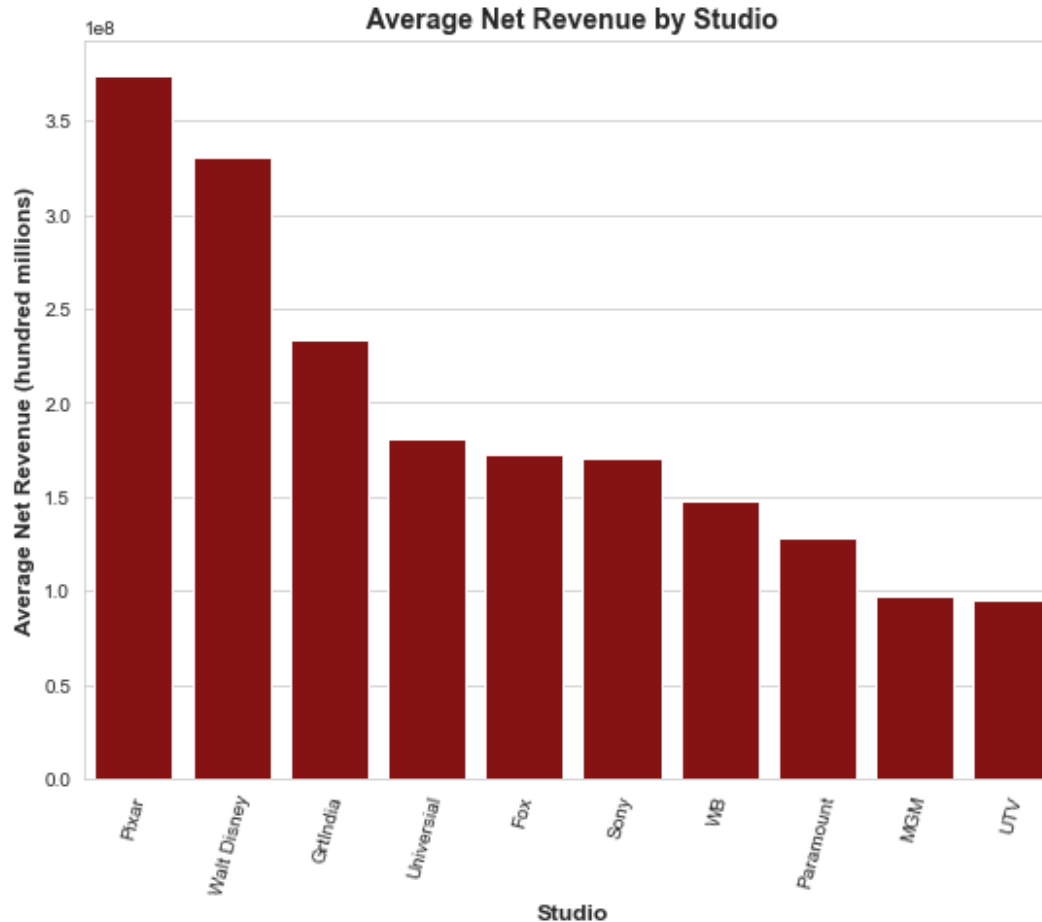
Studios Relation to Profitability

- The data showed that the larger and more established studios consistently generated the best results.

2

Studios That Generate Greatest Profits Per Movie – Second Finding ^{2, 5}

Avoid Free, Omni, and BSC



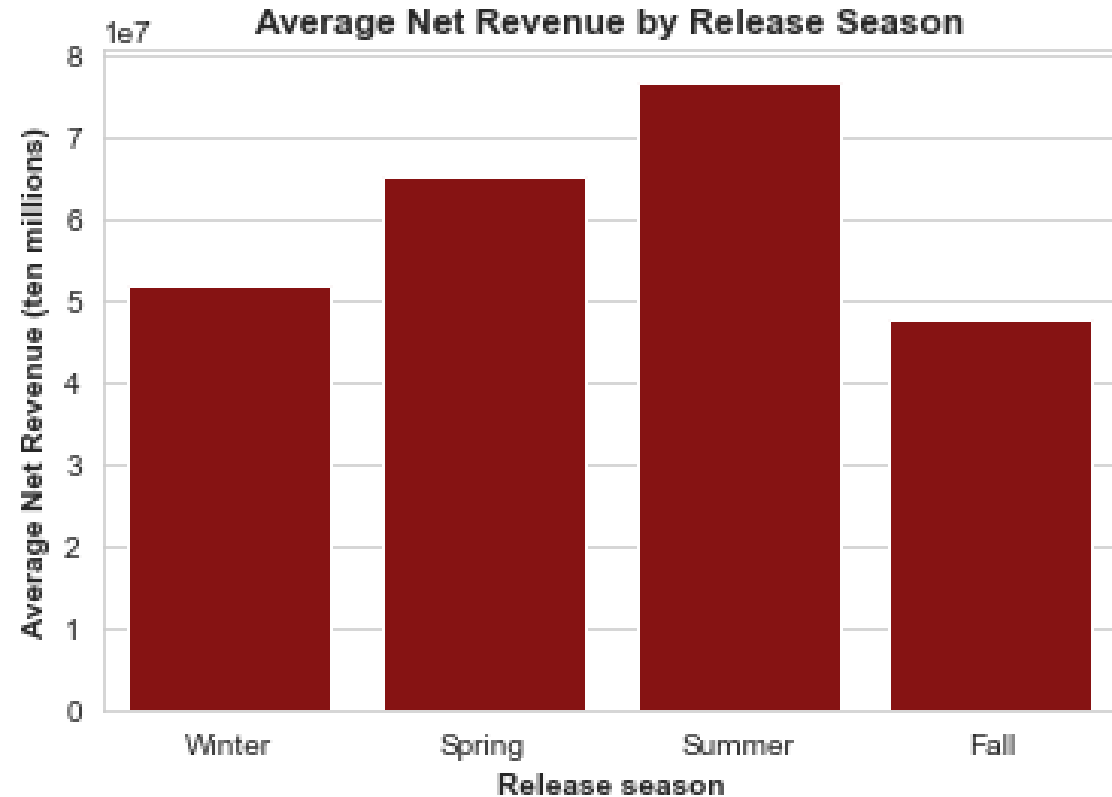
Seasons Relation to Profitability

- Our hypothesis was that Summer releases would be most profitable, and our analysis rejected the null hypothesis.

3

Movies Released during Summer Generate Greatest Returns – Third Finding⁵

Avoid Fall



Recommendations for Computer Vision

Three recommendations to shape profitable and competitive decision-making

1

Focus on Genres

There is a meaningful relationship between the genre of movie and net revenue. Animation, Adventure, and Fantasy generate the most revenue.

2

Partner with a Successful Studio

Larger and more established studios (i.e., Pixar, Disney, and Universal) are also indicative of a movie being particularly profitable.

3

Release During Summer

The second characteristic of movies that outperform is that they are released during Summer months. The worst time to release is Fall.

Next Steps & Further Exploration

Ideas for generating more insight on competitive decision-making



Cast & Crew

Determine which actors and directors tend to be affiliated with most profitable films.



Historical Popularity

Since popularity changes over time, a useful metric would be popularity *around the time* of a films release and how that correlates with profits.



More Depth

What is it about Action or Animation films that makes them the most profitable?



More Data

Determine if there are more comprehensive data sets and use them to draw more in-depth conclusions.

Conclusion

¹Internet Movie Database *Internet Movie Database*, <https://github.com/learn-co-curriculum/dsc-ai-academy-semester1-capstone/blob/main/zippedData/im.db.zip>. Accessed Feb. 2023.

²Box Office Mojo. *Box Office Mojo by IMDbPro*, Feb. 2023, https://github.com/learn-co-curriculum/dsc-ai-academy-semester1-capstone/blob/main/zippedData/bom.movie_gross.csv.gz. Accessed Feb. 2023.

³Rotten Tomatoes. *Rotten Tomatoes Movie Database*, https://github.com/learn-co-curriculum/dsc-ai-academy-semester1-capstone/blob/main/zippedData/rt.movie_info.tsv.gz. Accessed Feb. 2023.

⁴The Movie Database. *The Movie Database*, <https://github.com/learn-co-curriculum/dsc-ai-academy-semester1-capstone/blob/main/zippedData/tmdb.movies.csv.gz>. Accessed Feb. 2023.

⁵The Number. https://github.com/learn-co-curriculum/dsc-ai-academy-semester1-capstone/blob/main/zippedData/tn.movie_budgets.csv.gz. Accessed Feb. 2023.