

Flatiron Data Science

Phase 1 Project:

Microsoft Making Movies

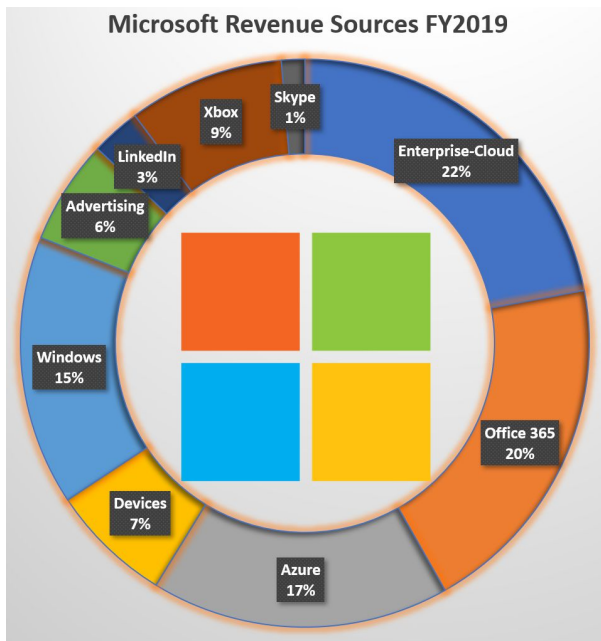
Andrew Rowan

Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

Business Problem

Microsoft wish to enter the movie industry and I was tasked with exploring databases and drawing insights as to where they should best direct their investment.

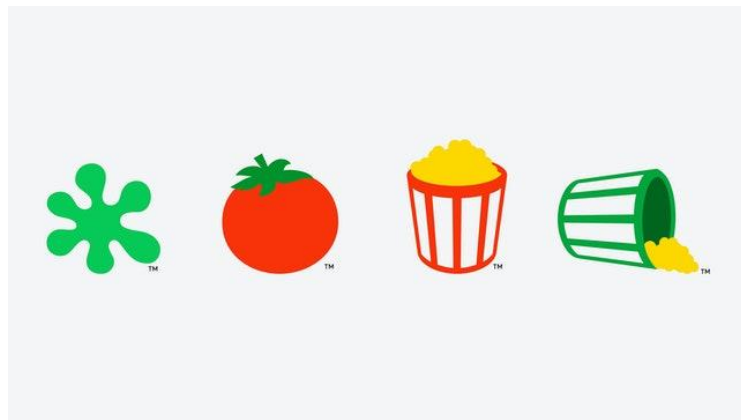


Movie Data

Data from the following sources, reviews, budgets, sales, ratings, directors, actors...



Box Office Mojo

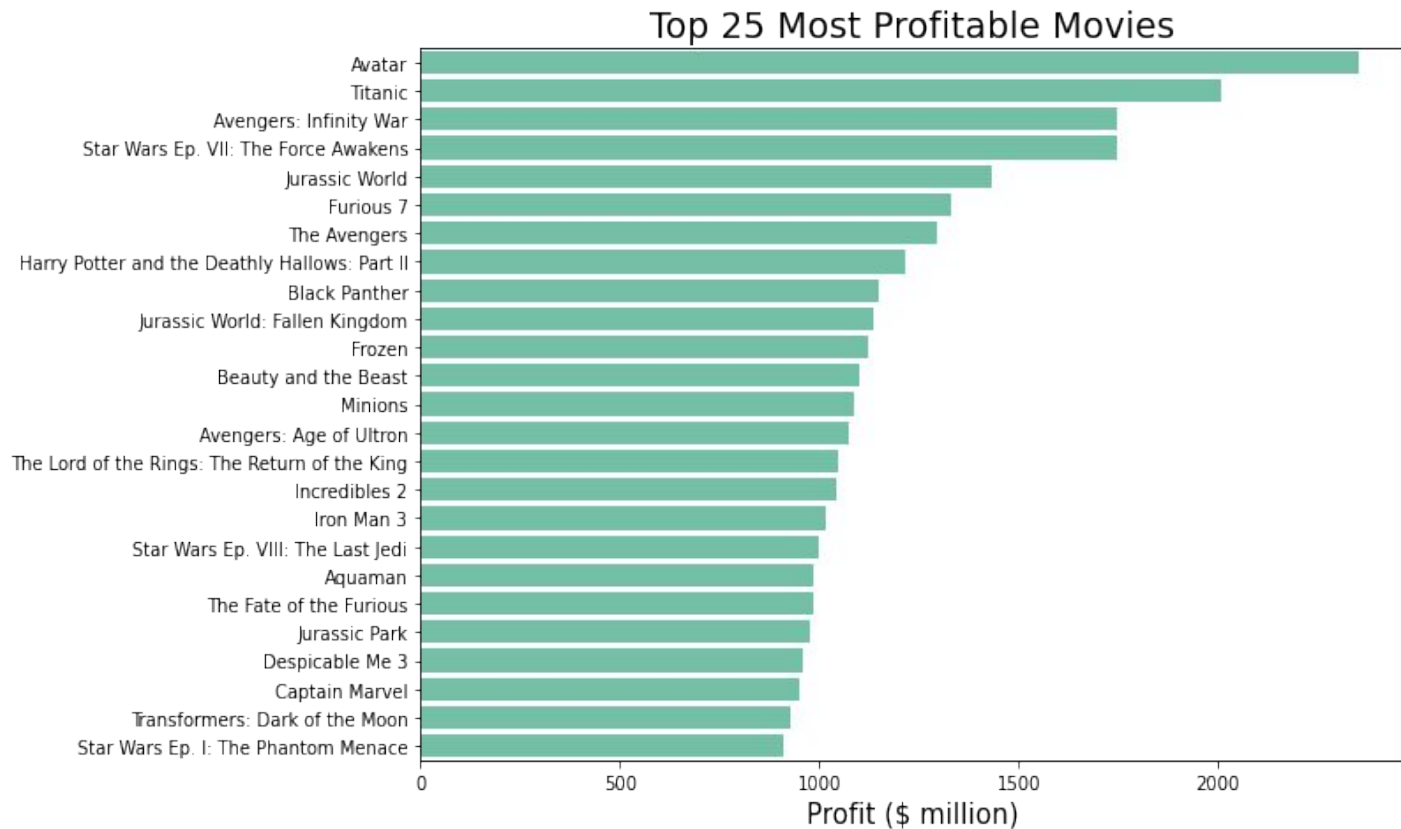


Methods

- Clean data
- Create useful variables - Profit, Return on Investment
- Analyse relationship between created variables and existing ones and provide useful recommendations to Microsoft
- Answer the following:
 - What movies are doing the best currently?
 - What genre should Microsoft focus on?
 - How much to invest?
 - Who should direct the movie?

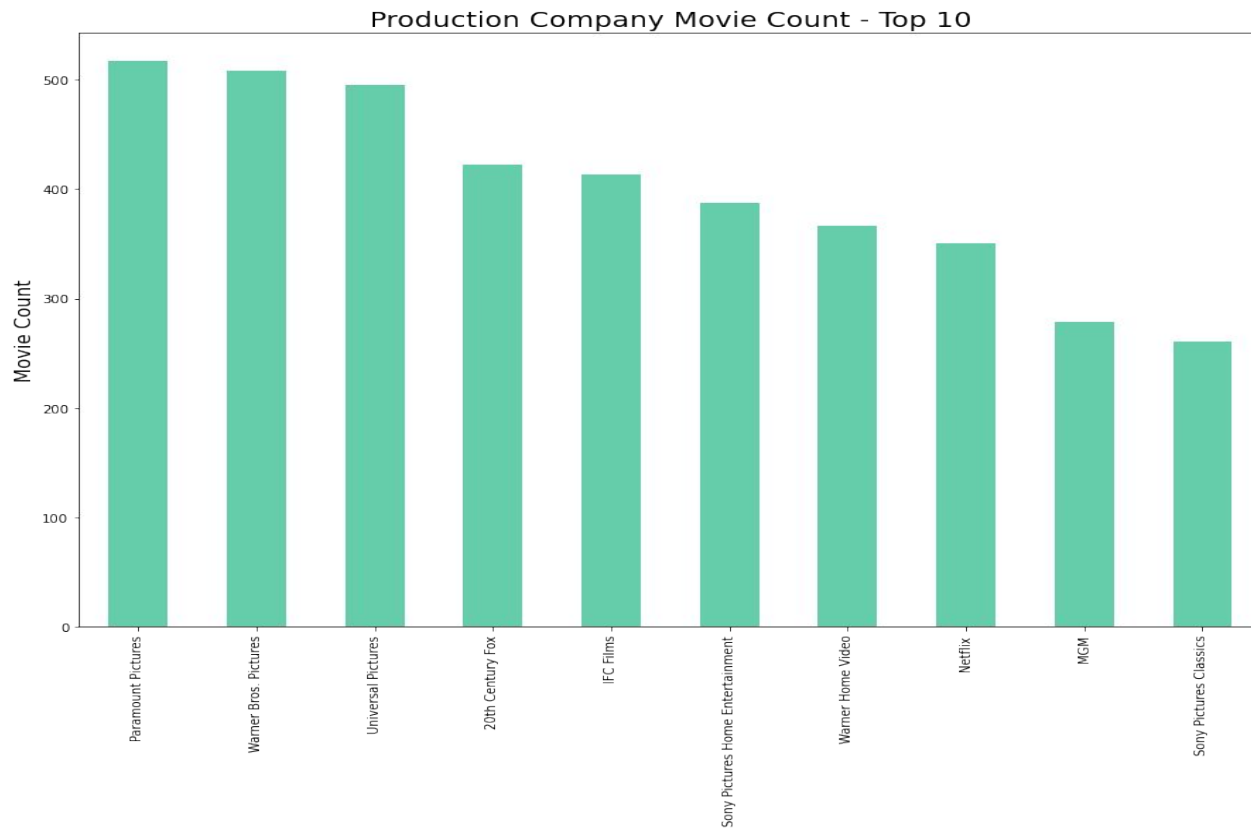
Results

Franchises and sequels are popular



Results

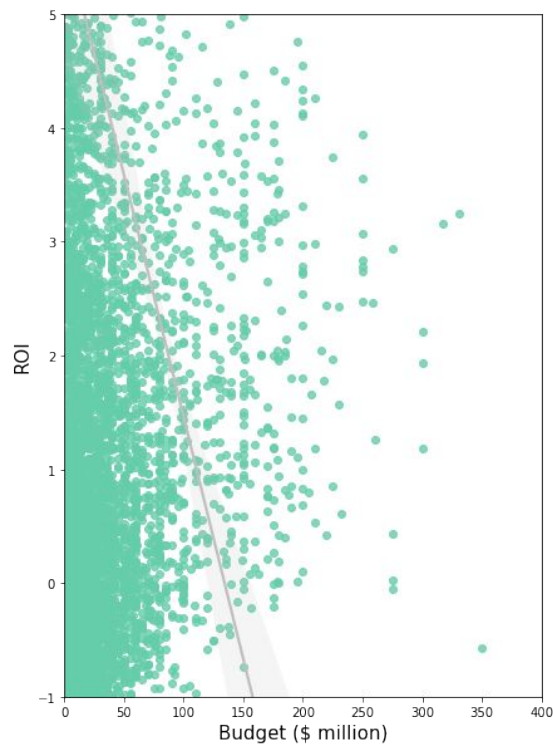
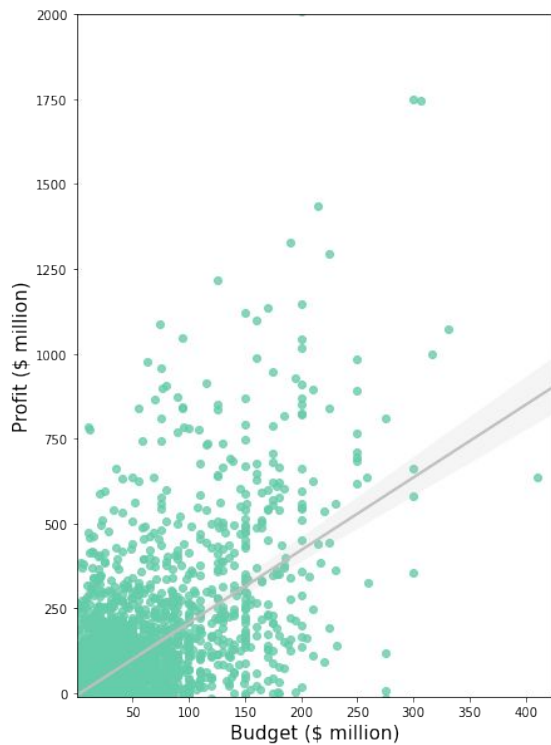
Big competition that have a lot of experience



Results

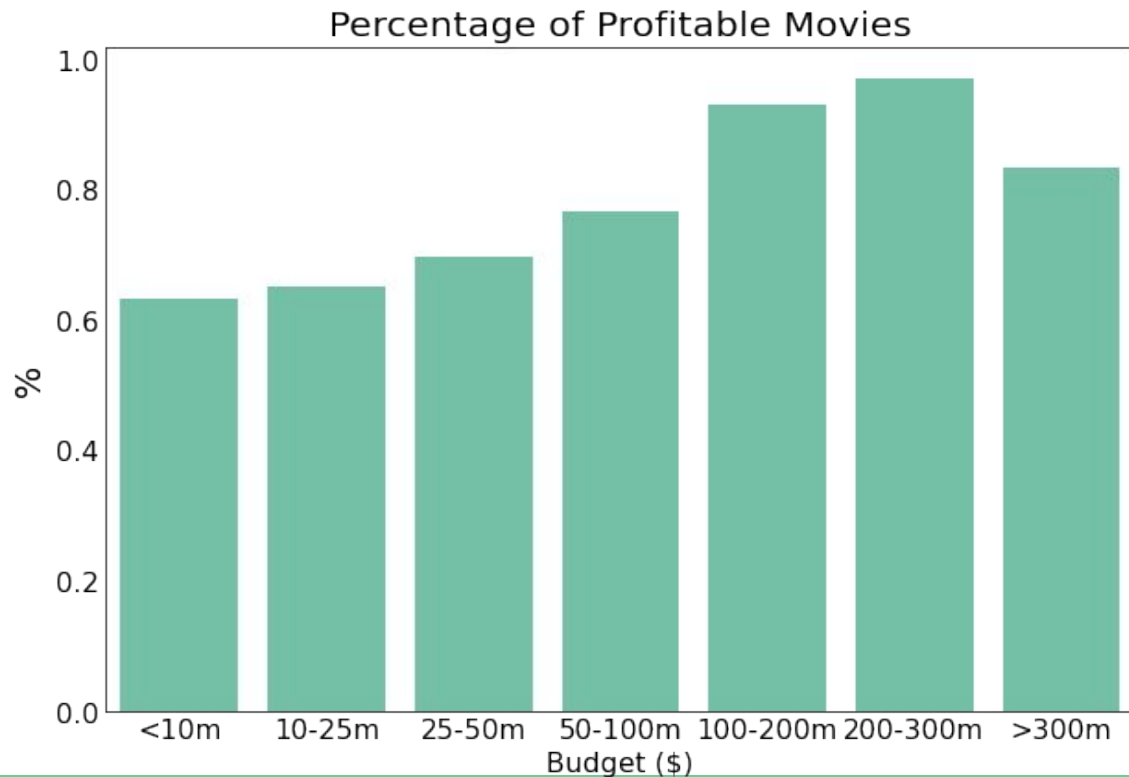
If you want big profits, be prepared to spend big

Budget Relationship with Profit and ROI



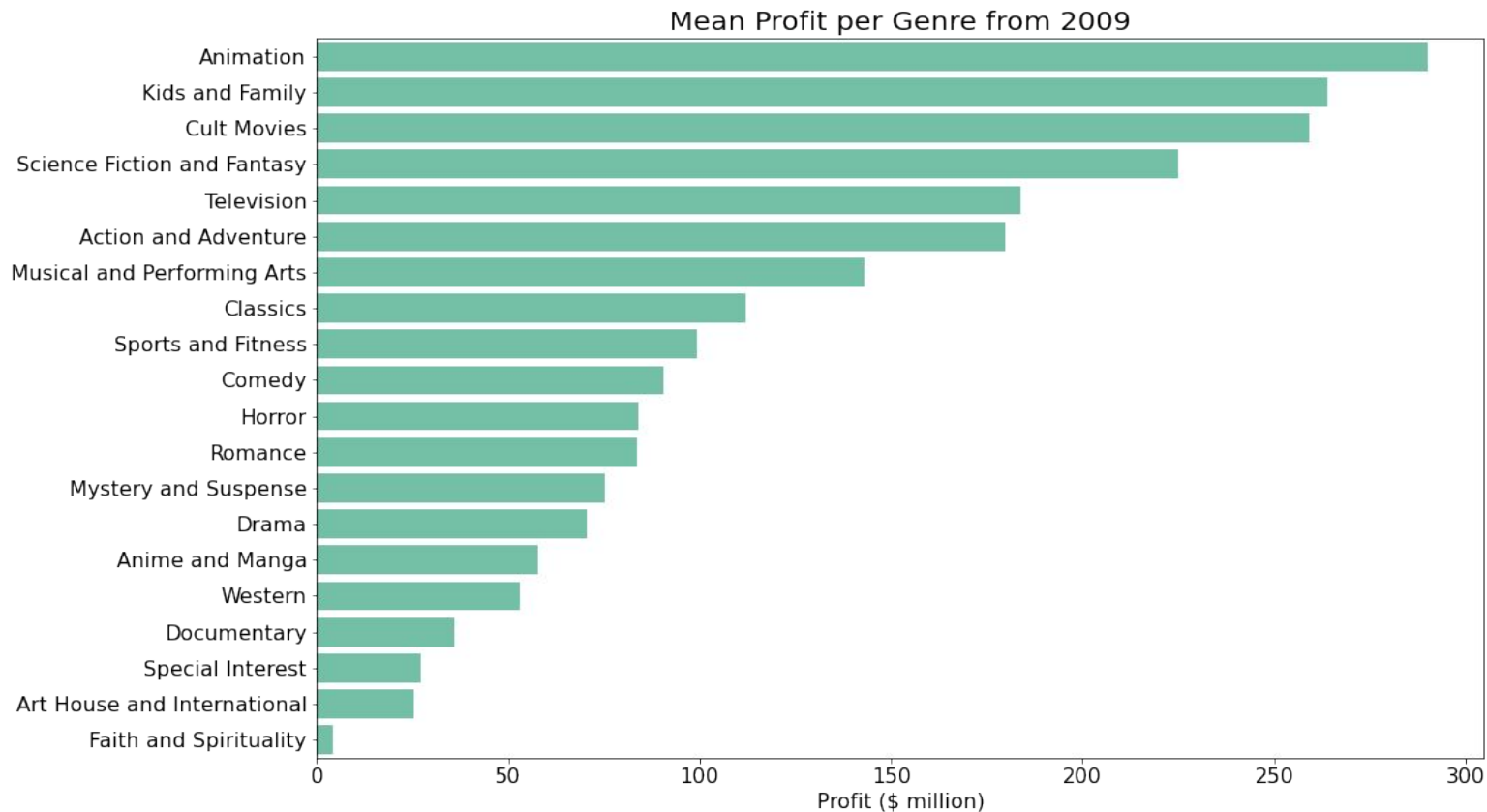
Results

Spending \$100-300m recommended - analysis of genres showed \$200m for animation is recommended



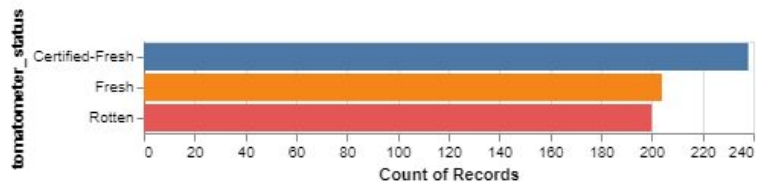
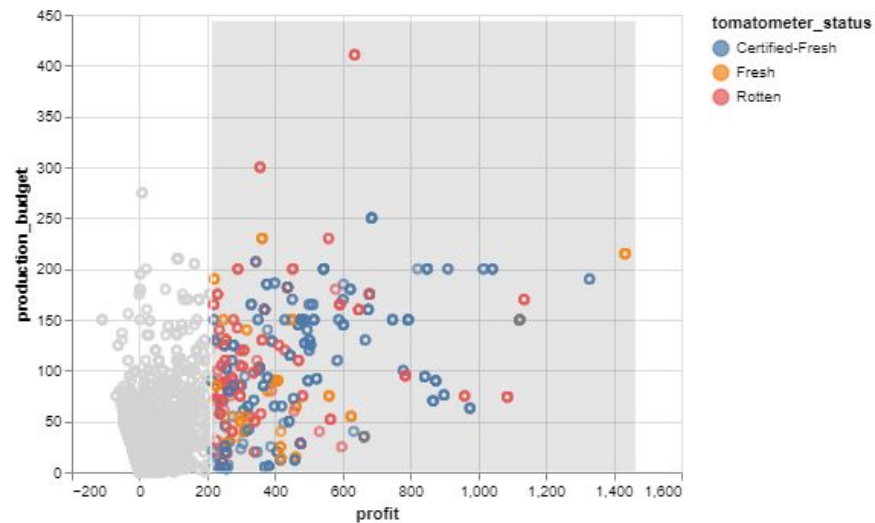
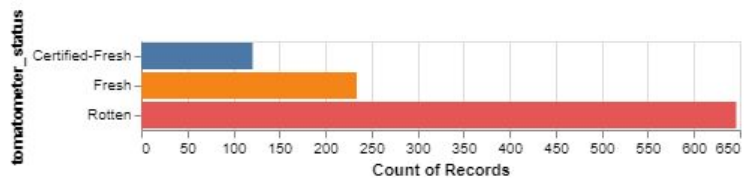
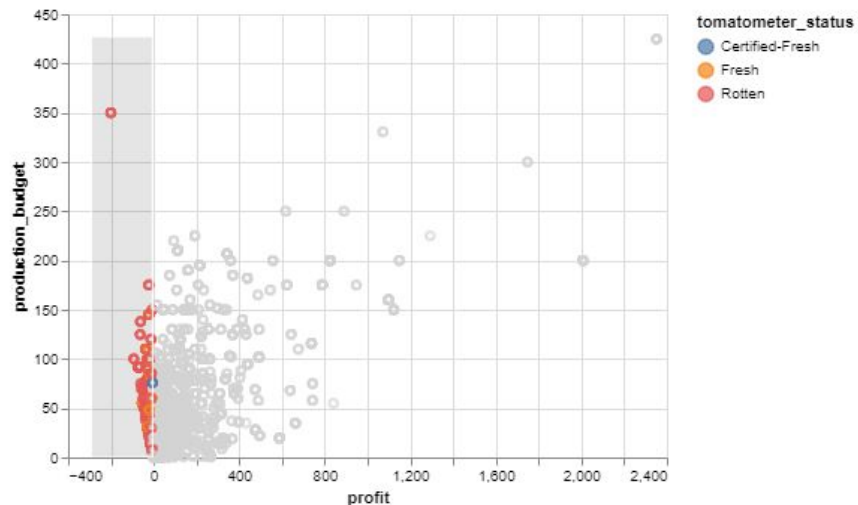
Results

Genre matters



Results

Quality matters



Results

Directors who fit the mould?

Jennifer Lee, Brad Bird, John Musker & Dean DeBlois are responsible for some big hits

A word cloud of Disney movies directed by Jennifer Lee, Brad Bird, John Musker, and Dean DeBlois. The words are arranged in a roughly circular pattern, with 'Frozen' and 'Frozen II' being the most prominent. Other movies include 'The Great Mouse Detective', 'Aladdin', 'Incredibles 2', 'Ratatouille', 'The Hidden World', 'How to Train Your Dragon 2', 'The Incredibles', 'How to Train Your Dragon', 'The Little Mermaid', 'The Princess and the Frog', 'The Iron Giant', 'Moana', 'Hercules', and 'Lilo and Stitch'.

TheGreatMouseDetective
Aladdin
Incredibles2
Ratatouille
TheHiddenWorld
FrozenII
Frozen
Hercules
Moana
TheIronGiant
HowtoTrainYourDragon2
TheIncredibles
LiloAndStitch
HowtoTrainYourDragon
TheLittleMermaidThePrincessandtheFrog

Conclusions

- Movie industry is as competitive as ever
- Most profitable movies are dominated by sequels and franchises
- Microsoft should prioritise the Animation genre
- Plan to invest up to \$200m for the first movie
- Any profit on a first venture into the industry would be a success however, ROI of 2 (\$400m profit) is a reasonable target.
- Release month of July is recommended for best chance of high profits.
- Poorly rated movies dominate when looking at those which made a loss.
- Invest in a director with proven track record in the genre (John Musker, Brad Bird, Dean DeBlois, Jennifer Lee)
- Prioritising big names for lead actor role is not seen as a big indicator of success

Thank You!

Email: adrowan88@gmail.com

GitHub: [aggie2411@username](https://github.com/aggie2411)