Predicting Popular Movie Genres by Analyzing Trends in Ratings over Time

Itu Mukherjee

Dataset

The following dataset was used for the study:

> IMDb Movie Dataset

Motivation

I want to analyze the data to see the movie genres trends by looking at average ratings over time to predict which movie genres is trending the most. This information could be potentially insightful for Movie production houses towards making decisions about investing in a genre.

Research Question(s)

Which movie genres are most highly rated in IMDb database

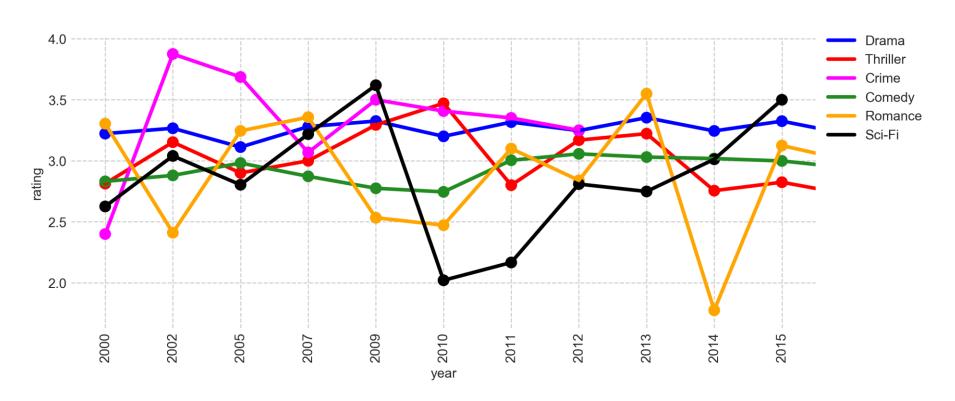
Are there temporal trends in average ratings of movies of different genres?

Word cloud showing the most highly rated movie genres in IMDb top 250 list of movies



- It is clear from the word cloud that movies belonging to the genres Thriller and Drama are most highly rated in IMDb, followed by Crime, Comedy, Romance and Sci-Fi.
- Therefore the next objective was to observe if there are any temporal trends in the ratings of the above six genres.

Temporal trends of IMDb ratings of movie genres since year 2000



Conclusion

- The time series plot demonstrates a trend of increased ratings of Sci-Fi movies in recent years whereas there is a noticeable decline in ratings of Thriller movies.
- The genre Drama which was one of the most highly rated in IMDb top 250 list does not show any noticeable temporal trend, suggesting that investing in these movies could be considered a relatively 'safe' option.
- Looking at the overall trends in the last few years Sci-Fi movies appear to be the most lucrative option whereas Thriller movies might be considered 'risky'.

Acknowledgements

I did all the work on my own.

References

I extensively used the following web resources to complete my project:

www.stackoverflow.com

www.datacamp.com