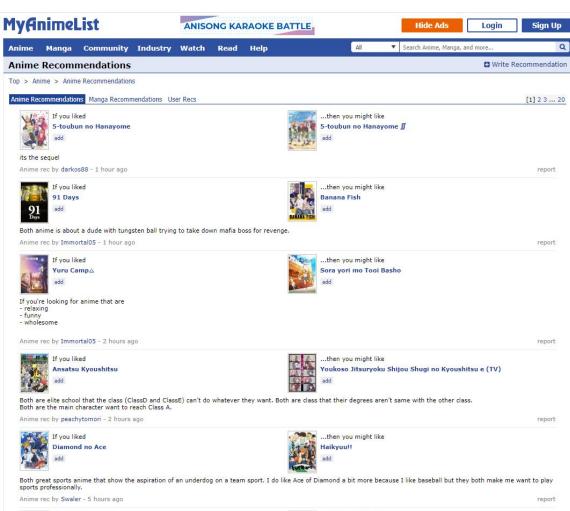
Anime Recommender

Jun Choi

Problem Statement



If you liked

...then you might like



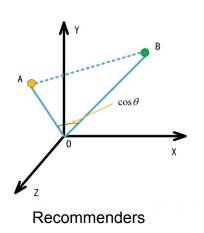
Recommender

Anime 1
Anime 2
Anime 3
Anime 4
Anime 5
Anime 6
Anime 7
Anime 7

Methodology









Data Collection



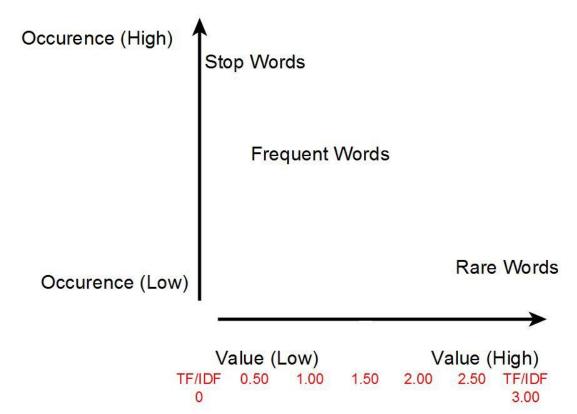




- jikanpy (Python wrapper for Jikan API, unofficial MyAnimeList API)
- https://github.com/abhinavk99/jikanpy

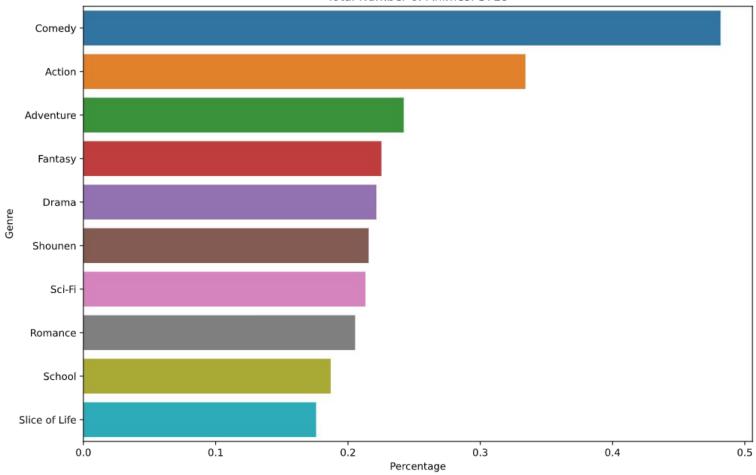
- Number of Anime Titles: 3,729
- Number of User Reviews: 3,894,501 (from 24,575 unique users)

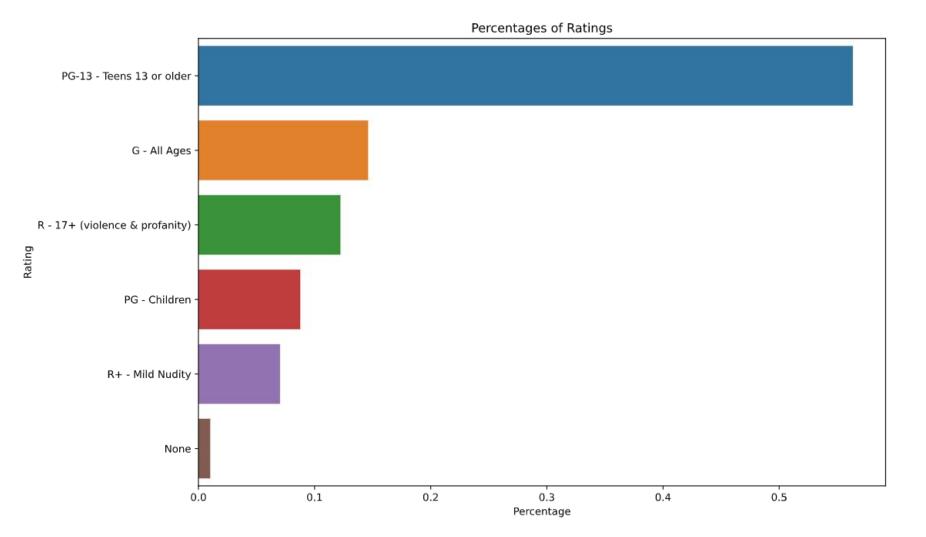
Data Cleaning/Preprocessing



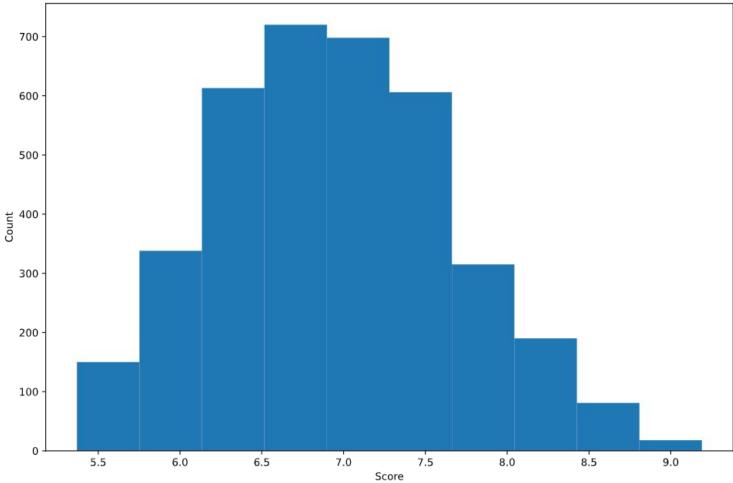
Exploratory Data Analysis

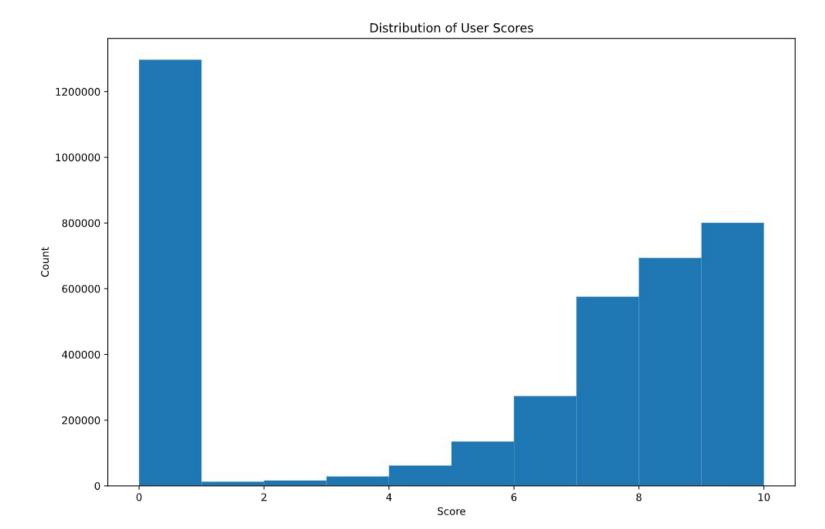
Top 10 Genres (by Percentage) Total Number of Animes: 3729



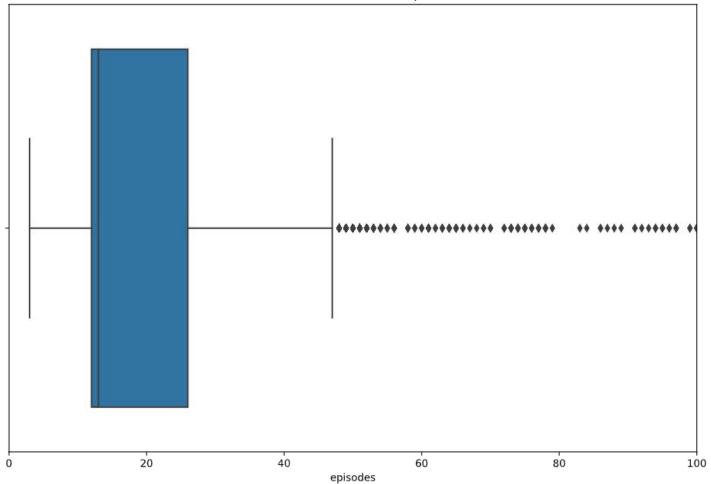




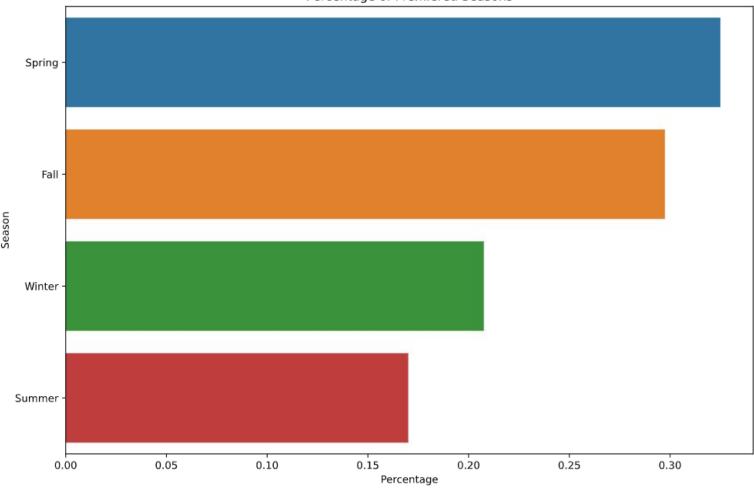




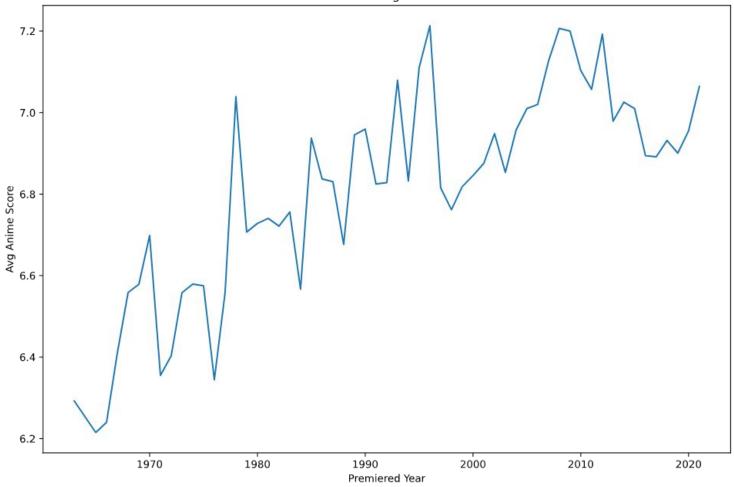












Modeling

Content-based vs. Collaborative Recommender

Content-based recommender



Collaborative recommender

	User 1	User 2	User 3	User 4
Fullmetal Alchemist	10	9	7	N/A
Shingeki no Kyojin	7	N/A	8	9
Steins;Gate	10	8	8	6

$$\cos \theta = \frac{\vec{a} \cdot \vec{b}}{\|\vec{a}\| \|\vec{b}\|}$$
$$\|\vec{a}\| = \sqrt{a_1^2 + a_2^2 + a_3^2 + \dots + a_n^2}$$
$$\|\vec{b}\| = \sqrt{b_1^2 + b_2^2 + b_3^2 + \dots + b_n^2}$$



Flask App Demo

Conclusion

A less subjective, data-led recommender can be created with MyAnimeList data.

Place more weight on collaborative recommender for *safe recommendations*.

Place more weight on content-based recommender for *similar animes*.

Although this recommender is better than what is being offered in MAL, more improvements can be made.

Thank you!