

The Kintoun Anime Recommender System

James Skelton



What's Anime?



- Anime are Japanese cartoons, but often approach numerous subjects Western cartooning avoids. Its popular with a more adult demographic for this reason.
- The anime industry was worth 19.1 billion USD in 2017
- The fan-groups for different anime are rabid spenders and media consumers

Background



- MyAnimeList.net is the premiere, English language, anime review website
- All the other recommenders for anime I personally have tried are, in my opinion, terrible

Goals



- To make an anime recommender using matrix factorization
- To never stare at the computer for 2 hours looking for a show to watch at night

Workflow



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One Piece



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Reviews

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Maxine (All reviews)

3783 people found this review helpful

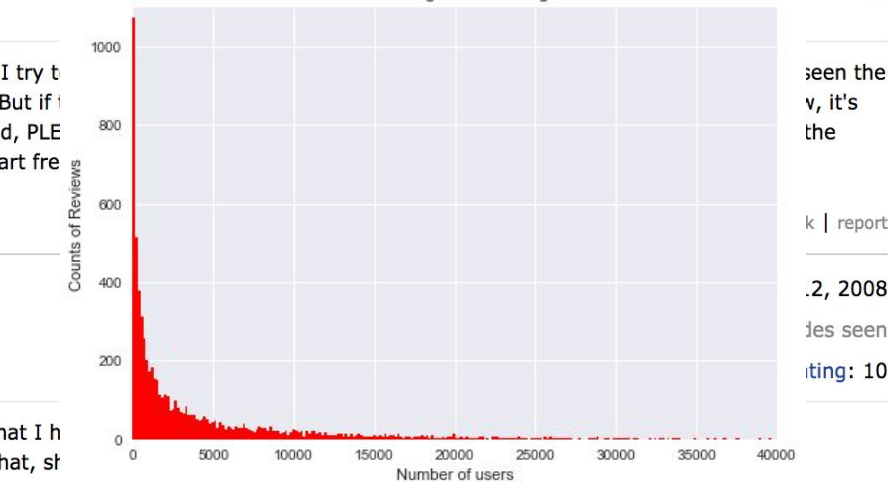
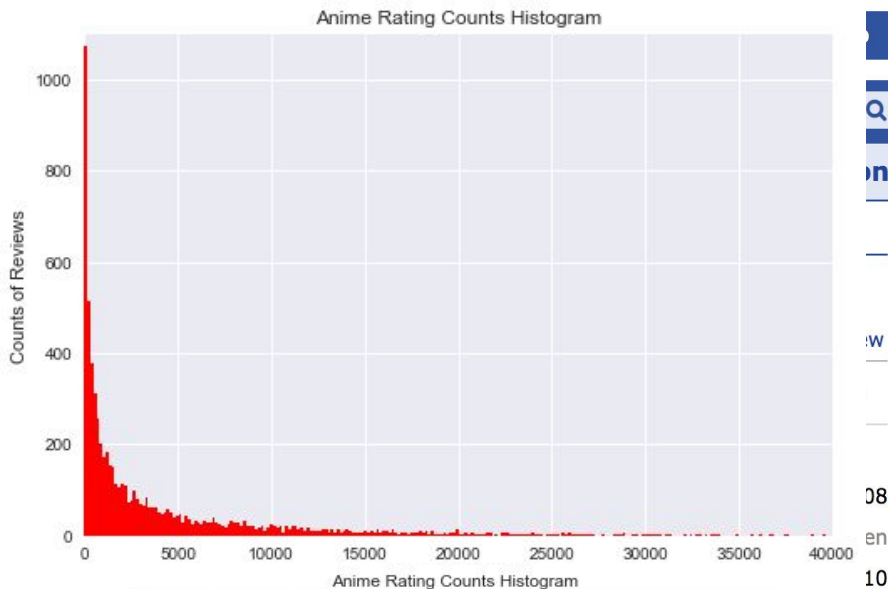
There are two responses I get, without fail, every time I try to dub - NO THANKS." I'm guilty of both of these myself. But if that the 4Kids dub is NOT One Piece. For the love of god, PLEASE 4Kids episodes, just erase them from your mind and start fresh.



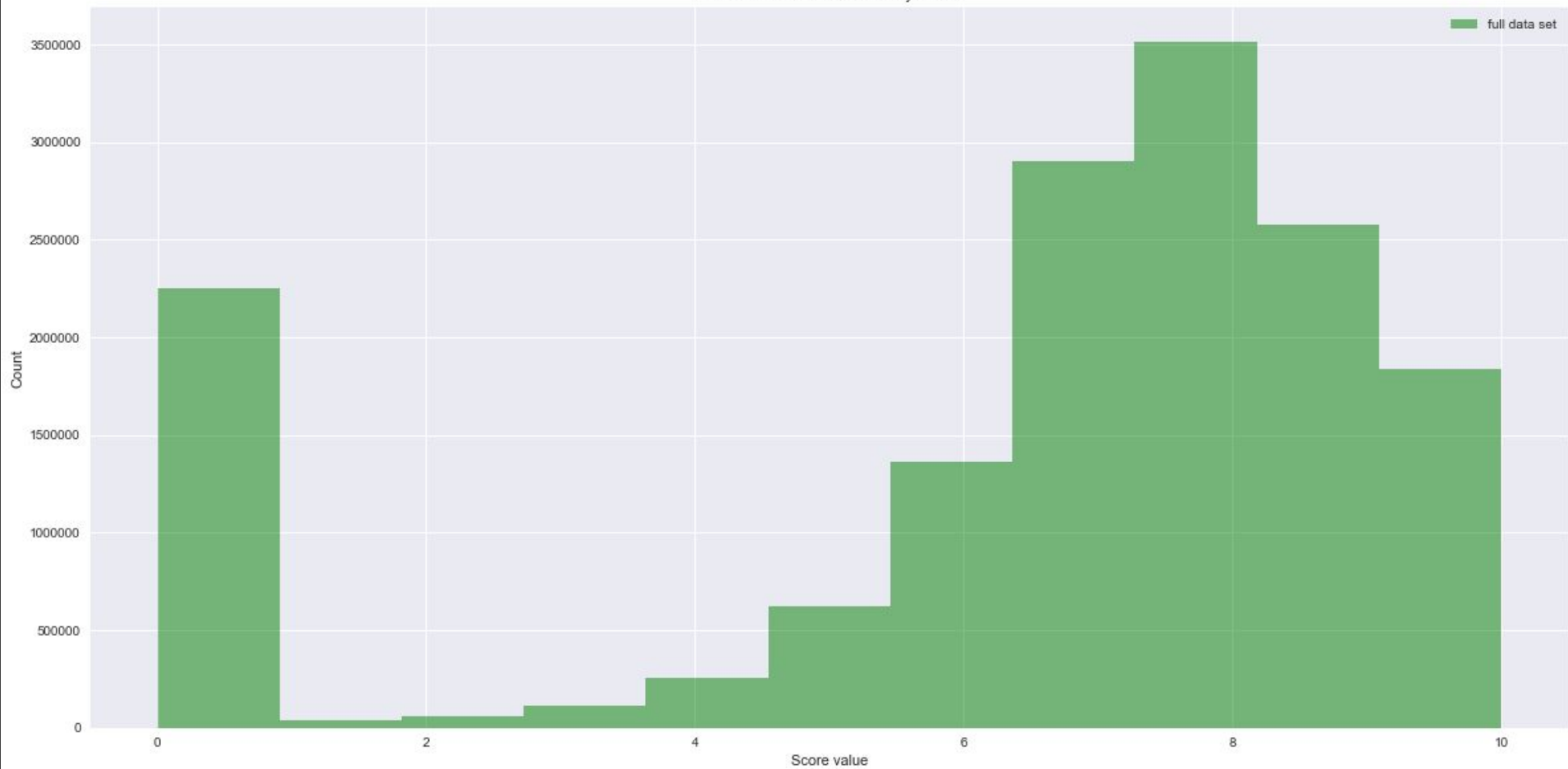
holdenn (All reviews)

1460 people found this review helpful

One Piece is by far the best shounen anime out there that I have seen. But not all share the same views as I do, let's remedy that, shall we?



Counts of each Score Given by a User



Key Decisions



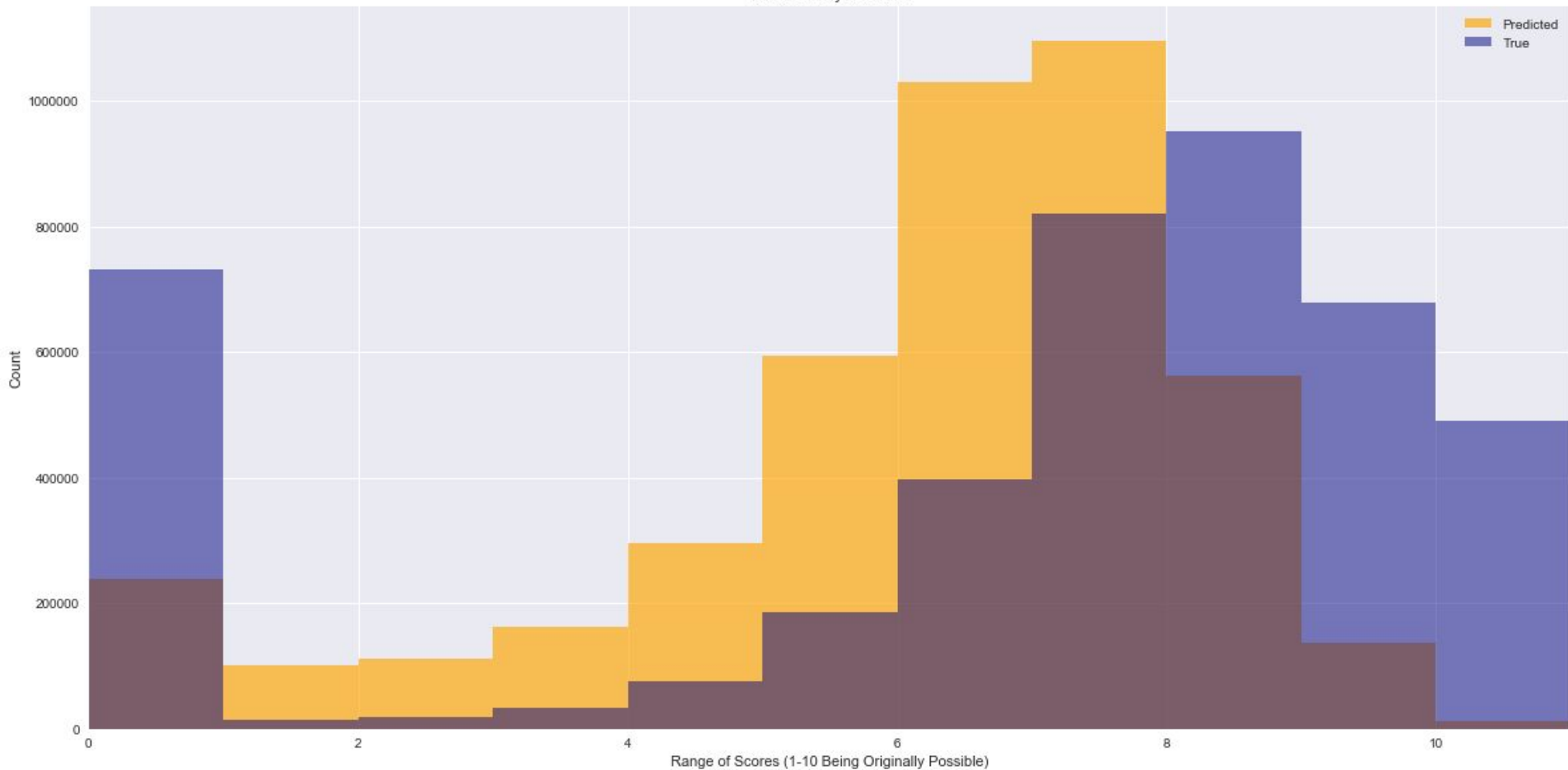
- The status feature - this was an expression of the users completion of the anime being reviewed. Only rows with 1, watching, or 2, completed, were kept
- Reviews with watched episodes less than 3 were dropped
- Users and Anime with less than 6 reviews were dropped
- Final zero count was 16.507% of original
- The final dataset had 15,546,712 rows after cleaning

Model & Results



- Spark's Alternating Least Squares matrix factorization model
- The Root Mean Squared Error was 1.614

Plot of the Predicted versus Actual Scores
Rated on MyAnimeList



Next Steps



- First, create a second, content-based recommender system using some of the unused features of the dataset, and hybridize it with the first model
- Second, launch the recommender as a web application/website
- Third, enjoy recommended cartoons

Thank you for listening

University of St. Andrews, BSc in
Psychology, 2018

Project Github:

https://github.com/JamesHskelton/Anime_Recommender

Linkedin:

<https://www.linkedin.com/in/james-skelton-b03aab1a1/>

Contact email:

jameshskelton@gmail.com

