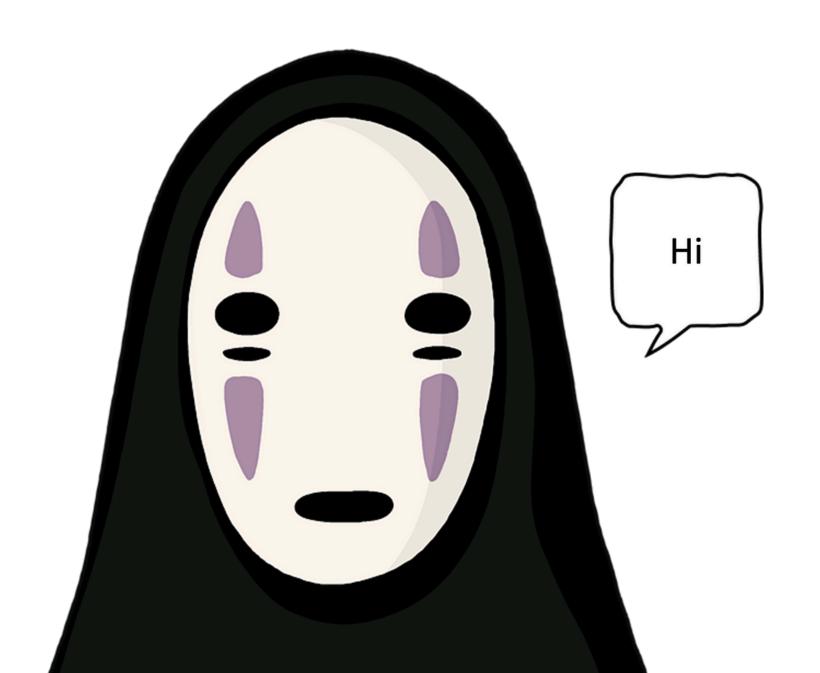
# DATA 400 PROJECT

Faye Le & Dylan Nguyen





Predicting Anime
Score Based on
Common Media
Metadata Fields

# DATA COLLECTING



Source: myanimelist.net/topanime

Scrape data using Selenium and Beautifulsoup

- Selenium: Rank, Title, URL, Score 10,000 data
- Beautifulsoup: Genre, Episode, Premiere, Studio, Source 4,000 data

#### Limitation:

- Missing value = Not found, regression model = 0
- Mostly categorical variables
- Time consuming

| ınk | Title  | URL   | Score  | Genres  | Episodes   | Premiered   | Studio   | Type   | Source   |
|-----|--|---|--|---|--|---|--|--|--|
| 1   | Sousou no Frieren                                      | https://myanimelist.net/anime/52991/Sousou_no   | 9.32   | Adventure, Drama,<br>Fantasy, Shounen   | 28   | Fall 2023   | Madhouse   | TV   | Manga  |
| 2   | One Piece Fan<br>Letter                                | https://myanimelist.net/anime/60022/One_Piece   | 9.17   | Action, Adventure,<br>Fantasy, Shounen  | 1  | Premiered<br>season not<br>found  | Toei<br>Animation  | TV<br>Special  | Light<br>novel   |
| 3   | Fullmetal<br>Alchemist:<br>Brotherhood                 | https://myanimelist.net/anime/5114/Fullmetal_A  | 9.09   | Action, Adventure,<br>Drama, Fantasy,<br>Military, S  | 64   | Spring 2009   | Bones  | TV   | Manga  |
| 4   | Steins;Gate  | https://myanimelist.net/anime/9253/Steins_Gate  | 9.07   | Drama, Sci-Fi,<br>Suspense,<br>Psychological, Time<br>T   | 24   | Spring 2011   | White Fox  | TV   | Source<br>not<br>found   |
| 5   | Shingeki no Kyojin<br>Season 3 Part 2                  | https://myanimelist.net/anime/38524/Shingeki_n  | 9.05   | Action, Drama,<br>Suspense, Gore,<br>Military, Survi  | 10   | Spring 2019   | Wit Studio   | TV   | Manga  |
|     |  |   |  |   |  |   |  |  |  |
| 96  | Gotou ni Naritai.                                      | https://myanimelist.net/anime/8120/Gotou_ni_Na  | 7.07   | Drama, Slice of Life,<br>School   | 1  | Premiered<br>season not<br>found  | add some   | Movie  | Source<br>not<br>found   |
| 97  | Hanyou no<br>Yashahime:<br>Sengoku<br>Otogizoushi - Ni | https://myanimelist.net/anime/48505/Hanyou_no   | 7.07   | Action, Adventure,<br>Fantasy, Historical,<br>Mythol  | 24   | Fall 2021   | Sunrise  | TV   | Source<br>not<br>found   |
| 98  | Hello! Sandybell                                       | https://myanimelist.net/anime/2799/Hello_Sandy  | 7.07   | Adventure,<br>Romance   | 47   | Spring 1981   | Toei<br>Animation  | TV   | Source<br>not<br>found   |
| 99  | Higepiyo   | https://myanimelist.net/anime/5983/Higepiyo   | 7.07   | Comedy  | 39   | Spring 2009   | Kinema<br>Citrus   | TV   | Source<br>not<br>found   |
| 000 | Highschool of the<br>Dead                              | https://myanimelist.net/anime/8074/Highschool   | 7.07   | Action, Horror,<br>Supernatural,<br>Suspense, Ecchi,  | 12   | Summer<br>2010  | Madhouse   | TV   | Manga  |
| 200 | 1 2 3 4 5 96 97 98 99                                  | 1 Sousou no Frieren 2 One Piece Fan Letter 3 Fullmetal Alchemist: Brotherhood 4 Steins; Gate 5 Shingeki no Kyojin Season 3 Part 2 96 Gotou ni Naritai. 97 Hanyou no Yashahime: Sengoku Otogizoushi - Ni 98 Hello! 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Brotherhood https://myanimelist.net/anime/5114/Fullmetal_A 9.09 Action, Adventure, Drama, Fantasy, Military, S 64 Spring 2009 Bones TV 3 Steins; Gate https://myanimelist.net/anime/9253/Steins_Gate 9.07 Drama, Sci-Fi, Suspense, Psychological, Time T 24 Spring 2011 White Fox TV 5 Shingeki no Kyojin Season 3 Part 2 https://myanimelist.net/anime/9253/Steins_Gate Nttps://myanimelist.net/anime/9253/Steins_Gate Nttps://myanimelist.net/anime/9253/Steins_Gate Nttps://myanimelist.net/anime/9253/Steins_Gate Nttps://myanimelist.net/anime/9253/Steins_Gate Nttps://myanimelist.net/anime/9253/Steins_Gate Nttps://myanimelist.net/anime/9253/Steins_Gate Nttps://myanimelist.net/anime/9253/Steins_Gate Nttps://myanimelist.net/anime/93524/Shingeki_n 9.05 Action, Drama, Suspense, Gore, Military, Survi 10 Spring 2019 Wit Studio TV 10 Gotou ni Naritai. https://myanimelist.net/anime/8120/Gotou_ni_Na 7.07 Drama, Slice of Life, School 1 season not found add some Movie Season not found Naritai. https://myanimelist.net/anime/48505/Hanyou_no 7.07 Action, Adventure, Fantasy, Historical, Mythol 24 Fall 2021 Sunrise TV 10 Highschool of the Dead https://myanimelist.net/anime/9598/Higepiyo 7.07 Comedy 39 Spring 2009 Kinema Citrus TV 10 Highschool of the Dead https://myanimelist.net/anime/8074/Highschool 7.07 Action, Horror, Supernatural, 12 Summer 2010 Madhouse TV |

## **EDA**



#### Distribution Analysis

- Score Distribution
- Episodes Distribution

### Categorical Variable Exploration

- Genre Analysis: Plot a bar chart of genre frequencies
- Studio Analysis: Plot the number of anime per studio and their average scores
- Source Analysis: Analyze which sources tend to have higher average scores
- Premiere Analysis: Analyze trends over years and seasons

# **EDA**



#### Correlation Analysis

- Numerical Correlations ('Score' and 'Episodes')
- Categorical Associations ('Score' and other variables)

#### Text Analysis on Titles

Analyze if there's any correlation between title length and 'Score'

#### Temporal Analysis

• Plot the count of anime releases per year --> Analyze average scores per year to identify if the quality is improving or declining over time

