

Project Proposal

Our data analysis dashboard will allow users to discover, compare, and contrast the good versus evil characters in the Marvel Universe. We will use two sources of data. The first data source is the Marvel Characters dataset from Kaggle¹. This is composed of eight csv files denoting character statistics, characteristics, and powers. The dataset also denotes if characters are considered good or bad within the Marvel Universe, their first appearance, and amount of appearances in comics or movies. These csvs will be merged on character names. The second dataset will be from the Marvel Universe API².

Our inspiration comes from the Marvel movie takes on and the multiple characters they introduce us to. Kaggle and Tableau also provided inspiration on creative visualizations³. Multiple visuals compared and contrasted various characters (see image examples below). We spent time researching location information for Marvel characters in order to develop a map to support the dashboard. However, we were not able to attain location data on the characters. It was decided to focus on more visualizations for the character attributes instead. From this inspiration, we decided to focus on good versus evil character attributes. This led to the inspiration for our research questions.

We want to analyze and visualize our data to answer the following questions:

- Does good triumph over evil when comparing their statistics?
- Which character is the most powerful?
- What are the similarities/differences of the most powerful characters?
- Have powers or attributes become more or less common based upon a character's length of time within the universe (in reference to first appearance date) and amount of appearances ?

Regarding regression and correlation, we initially propose:

- There will be a correlation between strength and overall power
- Good characters will consistently score higher in power
- The lower the statistic values, the least powerful the character is

For our color theme we will be using colors seen regularly in the Marvel Universe, including red, black, gray, orange, and blue⁴. We also plan to use images from the Marvel Universe, including comics and movies, to visually tie the dashboard and website together.

Multiple visualizations are being considered in order to compare and contrast the different attributes of the various characters. Ideas include, using a stacked bar chart for common powers

¹ Kaggle Marvel Superheros

https://www.kaggle.com/danniellr/marvel-superheroes?select=marvel_characters_info.csv

² Marvel Interactive API <https://developer.marvel.com/docs>

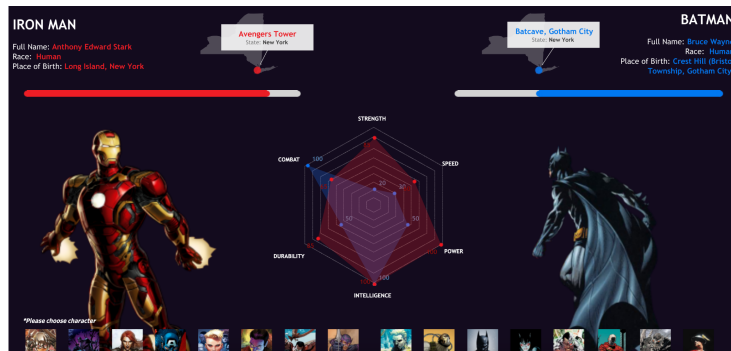
³ Marvel Tableau examples <https://public.tableau.com/app/search/vizzes/marvel?page=4>

⁴ Marvel color palette <https://www.color-hex.com/color-palette/6563>

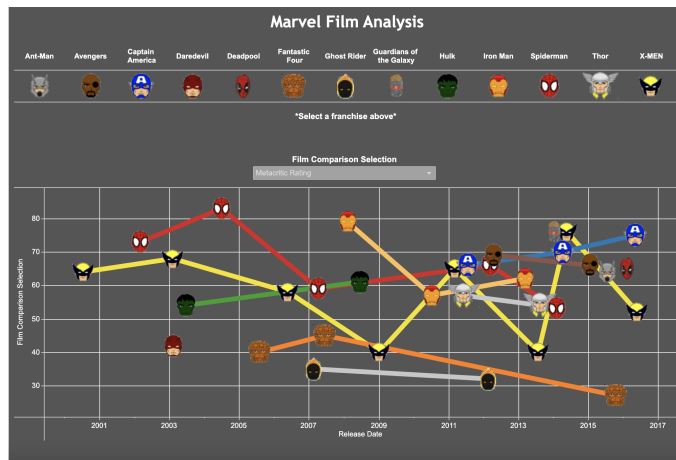
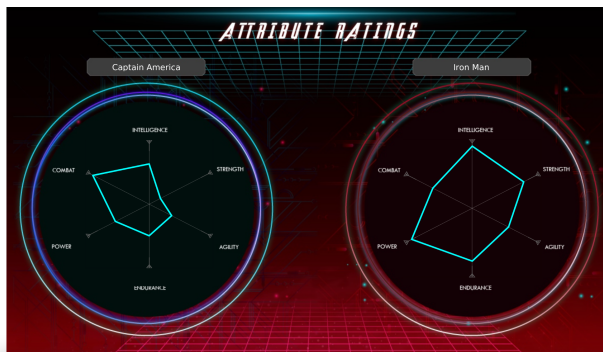
or traits for good versus bad characters, line or scatter plot for first appearances, bubble chart for appearance amounts, and a pi chart or radial bar chart for character statistics. A sunburst chart to look at character powers and characters was also suggested. We also looked at many visualization ideas from our inspiration and are discussing adding visualizations such as seen in the image examples below.

Project responsibilities:

- Brandilyn- Bubble chart, site creation, write up
- Lyndah- visualization, site creation, slides
- Matthew- visualization, slides, site creation
- Megan- sunburst, filtered character selection, write up



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⁵ Dashboard inspiration:

<https://public.tableau.com/app/profile/tokopedia.bi.team/viz/MarvelVSDC/dashboard>

⁶ Dashboard inspiration:

<https://public.tableau.com/app/profile/mathieu.rondeau/viz/MARVELCharacters/Mydral>

⁷ Dashboard inspiration:

<https://public.tableau.com/app/profile/mathieu.rondeau/viz/MARVELCharacters/Mydral>