

2019 San Francisco Shock Overwatch League Playoff Highlights

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Abstract—This project was to tell a story of any subject or issue through data visualization. Here I apprise the story of the San Francisco Shock Overwatch League Playoff Highlights during the 2019 season. Utilizing data visualization, I used data directly from the Overwatch statistic database and comprehend data visualizations to tell their story for success. What can be expected to learn from reading this paper is a simple overview of how Overwatch and the Overwatch League works along with the overall statistical performance the San Francisco Shock have exuded during the 2019 regular and playoff season. The project is composed of a full website hosted on GitHub Pages with various sections of pages to visit on how the San Francisco Shock became successful. If you are not familiar with the video game of Overwatch, it is important to visit the website and read the General Game Info about the game.

I. INTRODUCTION

Always interested in some sort of sports, not necessarily mainstream sports like basketball or football, Esports was an enjoyment to watch in seeing skill and teamwork at work. Specifically, the game Overwatch, a team based multiplayer first-person shooter game. It assigns players in two teams of six and each player selects from a large pool of characters with unique kit of abilities. Teams work and battle to complete map-specific objectives within a limited period of time. As for the Overwatch League, the San Francisco Shock is one of the teams in the league and a favorite team of mine. I want to be able to represent and highlight the SF Shock with all their successes from this season. This project displays and exemplifies that success through data visualization. Based on certain performance statistics and measurements, graphs can be composed to cohesively explain a certain statistic.

A. Project Objectives

Moreover, project objectives expected would be:

- Basic Overwatch and Overwatch League information.
- Information about the team such as player roster information of the season, which includes their overall statistics.
- Data visuals of the players' heroes usages and a season record timeline.
- An analysis of the team's performance of the season along with another team's performance using comparisons.
- A section of honoring top overall players and notable players.

II. RELATED WORK

This project is an example that builds upon the work of *State of the Art of Sports Data Visualization*, where it illustrates the ever growing data visualization in sports data. Various sports produce new data types allowing new advancements in graphical visualizations. Another related work is Magtanggol's *Stage One Overwatch League Data Visualization and Analysis* where the inspiration of this project came from but focusing more on a specific team, the San Francisco Shock. Learning about the D3 Javascript library in creating graphs, the *Interactive Data Visualization for the Web, 2nd Edition*, helped me fully utilize the library and implementing it into my project.

III. APPROACH

As stated earlier, this projected was hosted on a simple website through GitHub Pages and using an HTML template to beautify the site. Initially, the approach was to have a scrolly-telling style website to scroll through the page, but instead opted for a simple site with multiple clickable pages. Using the D3 Javascript Library, enabled me to create various graphical visualizations. Many visualizations worked out and became a success in what I wanted to implement into the site, but some did not work out and I scrapped them completely.

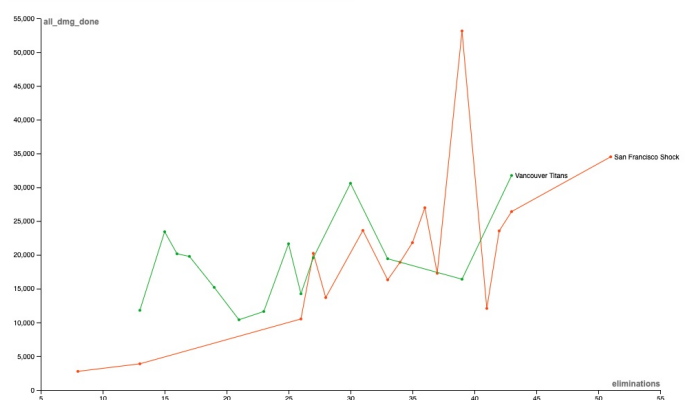
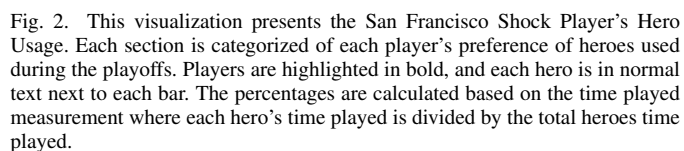


Fig. 1. Line chart showing a comparison of the 2019 Grand Finals between the San Francisco Shock and the Vancouver Titans. The measurements used was comparing the Damage Done per Elimination between the teams. The orange line represents San Francisco Shock and the green line represents the Vancouver Titans. Each dot on the line represents each player on their respective teams. The "all-dmg-done" measurement is the amount of damage a player inflicts on the enemy player, while the "eliminations" measurement is the amount kills the player has against the enemy player.

Other than this chart being a failure, all the visualizations I had perceived in beginning this project were possible and implemented utilizing the D3 Javascript library, and I could not have been more satisfied with the end results. More information about each visualization are on the next section.

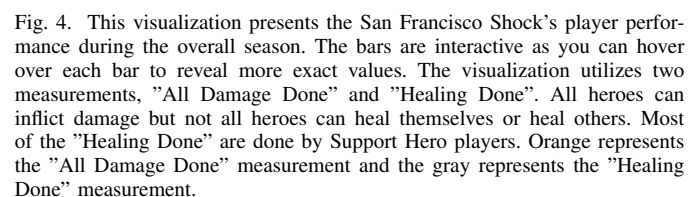
With the D3 Javascript library and implementing them into my HTML and CSS site, I have created the following visualizations:



San Francisco Shock

Enemy Teams	Performance
Team Liquid	0.18
Cloud9	-0.08
Fnatic	-0.05
TSM	0.12
Immortals	0.15
Evil Geniuses	-0.12
Counter Logic Gaming	-0.05
Team SoloMid	0.18
100 Thieves	0.15
Team Envy	0.18
Team Roster	0.15
Team Astralis	0.18
Team Vitality	0.15
Team NRG	0.18
Team FaZe	0.15

The two visualizations above aligns with the project objective: "Data visuals of the players' heroes usages and a season record timeline."



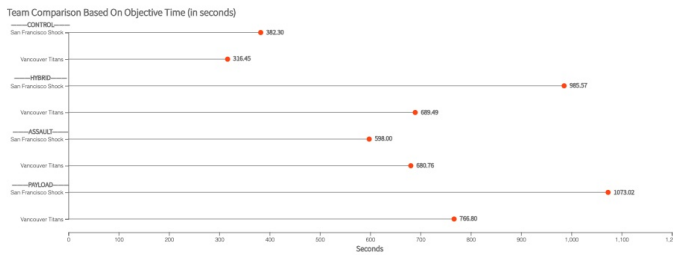


Fig. 5. This visualization presents the San Francisco Shock's team performance compared to another team based on their Objective Times (in seconds). The Objective Time is counted based on a player's standing on the main point/objective. This measurement better presents a team's performance for comparison as it allows teams more possession of the point after each battle. In other words, the more battles a team wins on the objective, the more possession of the objective and time allotted proves the stronger team. Each team's Objective Time is the sum of all players' time of that team depending on the map types.

The two visualizations above aligns with the project objective: "An analysis of the team's performance of the season along with another team's performance using comparisons." In the final product, success was measured through being able to tell a story through data visualizations. By sharing detailed graphs of information based on certain measurements, I was able to tell a story, or more specifically, highlight the San Francisco Shock's success in the Overwatch League 2019 Playoffs.

V. DISCUSSION

The approach I took was promising as the end product of this project was satisfactory and the overall objective in telling a story became a success. If I were to implement a different approach, I think a different approach that would be better would be using scrolly-telling as the scrolly-telling style is easier to present fluid information in an organized matter. Although I think scrolly-telling would also be harder to implemented. By doing this project, I learned of how data visualization is a powerful tool in exploring more contexts than staring at data itself. Each visualization is a story itself, telling the user more information than what hasn't been found or known.

VI. FUTURE WORK

As stated earlier, if I had more time on this project, I would have like to used scrolly-telling to scroll through the visualizations along with adding more visualizations to further more on the concepts and statistics of Overwatch as there are many different types of visuals with different data types.

VII. REFERENCES

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