

## Introduction

Hi, my name is Natalie Hong and I am a third year Software Engineering Student. I have chosen to take this course as I enjoy visualising data spread and am super interested in the graphics section of the course as I was able to brush over it in highschool, but was never able to further my knowledge in it. I also am heavily involved in a certain gaming community which has served as the main factor of choice for my visualization project decision.

## What?

What I will be visualising will be Australian character data and usage throughout 2019 for the game Super Smash Bros. Ultimate for the Nintendo Switch. Since I am using an API and the data is always updating, I will be sorting each set of data into states and then into individual quarters of 2019. Data will be visualised on a webpage as I would like it to be publically viewed when the project is completed.

The data will be presented as a bubble chart in which the positioning of the bubbles will be determined by elo (skill points) and total games played, with each bubble representing a character in the game. The radius of each bubble will represent the number of individual players of each character. Since there are 70+ characters in this game, data visualization will be limited to displaying the top 5 characters.

## Why?

There are many reasons as to why I would like to undertake this project, so I'll summarise it for you:

- I am curious as to if the amount of individual players will influence elo gain and/or matches played
- I have a passion for this game and the data that the API offers
- During the holidays, I worked on many projects similar to this one utilising the same API so I have a sense of familiarity doing this project
- I enjoy web design and feel like this style of visualization will be visually pleasing

## How?

To achieve the visualization page that I want I will use the following tools:

- Python 3
- Bubble Chart JS library (to be decided)
- Ausmash API ([Click for Documentation](#))
- JQuery for Interaction display

## Example Visualization

Before diving into the code, I decided to make some very basic designs for what the final product could be. These designs were as follows: