INFO4310: HW1 – Static Visualization Design

Link to Visualization: <https://ec584-info4310-hw1.herokuapp.com/static/>

**Goal:**

The goal of this visualization was to show the viewer how San Francisco trees have developed over the years from 1955-2020. This meant highlighting where and when trees were planted and showing a progression of tree development.

**Data Processing and Trade-offs:**

A large portion of the data did not have a filled “PlantDate” field. Because I wanted to encapsulate as many data points as I could with this drawback, I chose to process the RAW file. Filtering out the date-less data points shrunk the data from 50,000 to 17,766. I acknowledge that because of this, a significant portion of the data was lost, however, it was necessary in order to provide any visualization using dates. I considered adding the date-less points to the visualization to provide context but decided that it was not beneficial to the overall goal. I additionally considered providing a bar showing the total fraction of trees represented from the entire dataset, but I thought that it was difficult for users to use that information to their benefit and could lead to misinterpretation.

**Design & Rationale:**

I wanted to portray the change of time and because this is a static design, I decided that multiple “graphs” would allow the user to envision change without actually having animation or interaction. Once I found the date range, I decided the range into decades to have 7 graphs instead of 65 graphs. This would allow the user to see change more substantially and compare graphs more easily. Unfortunately, that meant the last map would only have 5 years, but I made sure to write an indicator so that people would recognize that the data is incomplete. With these requirements in place, I created maps that showed more and more trees on each map by representing each tree by a circle in the color green, for vegetation. But once complete, I realized that it was really hard to decipher the change between some decades. Although you could see progression, it was hard to compare the difference between them. Therefore, I decided to color the most recent trees (from the latest decade) in pink. The color is not natural; however, it provided the most contrast against the existing green trees while not overpowering the green in the background.