HW 1 Write-Up

My visualization helps explore the distribution of trees across San Francisco neighborhoods in an interactive way. Trees play an important role in improving air quality, supporting the climate, and making communities more livable. However, tree coverage is not the same everywhere—some neighborhoods have a lot of trees, while others have very few. This map allows users to see which areas have high or low tree density, encouraging conversations about city planning, environmental efforts, and fair access to green spaces.

The visualization uses two main datasets: (1) a GeoJSON file with San Francisco's neighborhood boundaries and (2) a filtered CSV file listing tree locations. The data was processed by mapping neighborhood boundaries, reading tree locations using latitude and longitude, counting the number of trees in each neighborhood, and ensuring the data was formatted consistently for visualization.

To clearly show tree density differences, the map uses a color scale where darker green represents more trees and lighter green represents fewer trees. Each neighborhood is shaded based on its tree count, making it easy to see patterns. Users can also hover over a neighborhood to see a tooltip with the exact number of trees in that area. A legend is included to help interpret the color scale.

My design prioritizes clarity and ease of use. I chose the green color scheme as it naturally connects to the subject of trees. Interactive features like tooltips help users explore the data without cluttering the map with labels. Gridlines and outlines make it easy to distinguish neighborhoods while keeping the focus on tree distribution. I feel like my visualization effectively balances simplicity and detail, making it a useful tool for both the general public and potentially city planners.