**Leaflet: An Introduction to Geographic Data Visualization**

For ggplot3's final project, we will be discussing the R package Leaflet, an open-source JavaScript library available to R users in order to create interactive maps of their data. This package is essential when examining geographical data, as it allows for visualization of the data quickly, allowing its user the ability to quickly identify visual patterns within data linked to latitude and longitudinal coordinates. For example, when analyzing natural disasters, Leaflet allows for quick visualization of a disaster's location; a data scientist could easily input many disasters into a data set and map them, spotting patterns in their occurrence. Our overview of Leaflet will include:

1. Installing Leaflet and interfacing data with Leaflet
2. Creating maps with Leaflet
3. Making the Leaflet map fit the programmer's needs
    a. Adding text to maps
    b. Adding color to maps
    c. Adding filters to maps

In order to communicate the above points, we will be using a data set taken from the website data.world which contains UFO sightings from 2016 from the US and Canada. The data set contains 5,177 observations, which include the date, the shape of the object, a description of the sighting, and the latitude and longitude of the sighting. We will be able to add text to the map by integrating the description of the sighting with the geographical data, color by treating the shape of the object as a categorical variable, and layers by filtering the data based upon shape, date, country, or state. By interfacing this data with Leaflet, we will be able to show Leaflet's visualization power, as it is able to easily make accessible visualizations of geographical data.