

# UFO DATASET ANALYSIS



Nolan Wu

# Introduction

Through a thorough analysis of the UFO sightings data set, I have found several interesting trends of UFO sightings that reveal surprising information involving number of sightings through the years, patterns involving population, and the times.

## Trend #1

### UFO Sightings Over Time

As shown in Figure 1, the sightings of UFOs grew almost exponentially around the mid 1990s. In this dataset, the peak year for UFO sightings was 2012, which had 6199 sightings in total. The drop off in sightings in 2014 is a mis representation of data, as there is no data beyond May 2014. At the current rate, the predicted trajectory of total sightings in 2014 will be 5335 sightings, which will be the 3rd highest number of sightings in a year.

In figure 2, I showed the trends of the 3 highest sighting countries (US, CA, GB) to compare them to the graph for all UFO sightings. As shown, the USA graph directly correlates with the general graph due to the fact that the majority of the sightings were in the US. CA and GB had different trends, but they all shared a rapid increase in sightings around the mid 1990s.



Figure 1

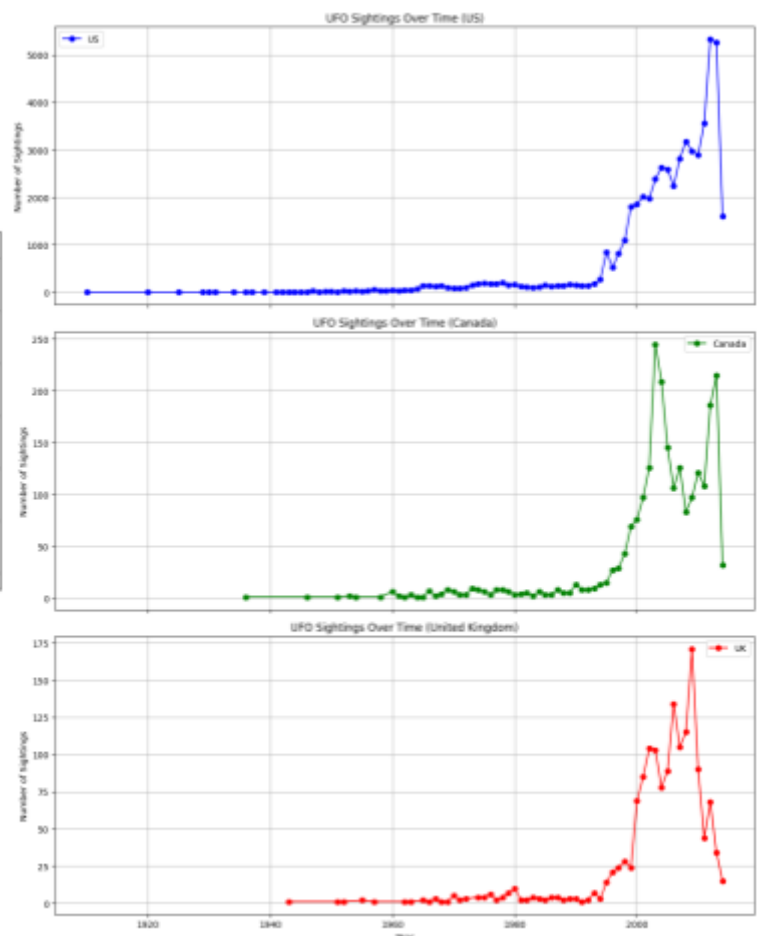


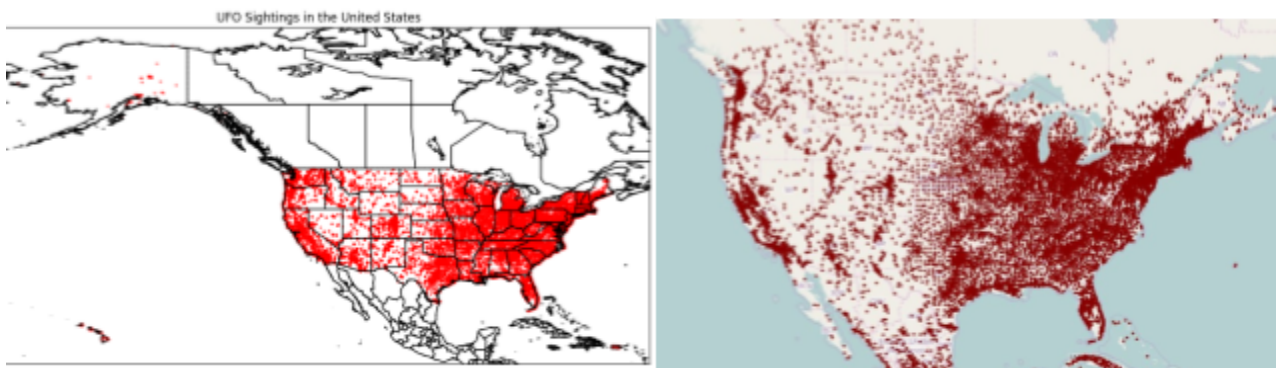
Figure 2

## Trend #2

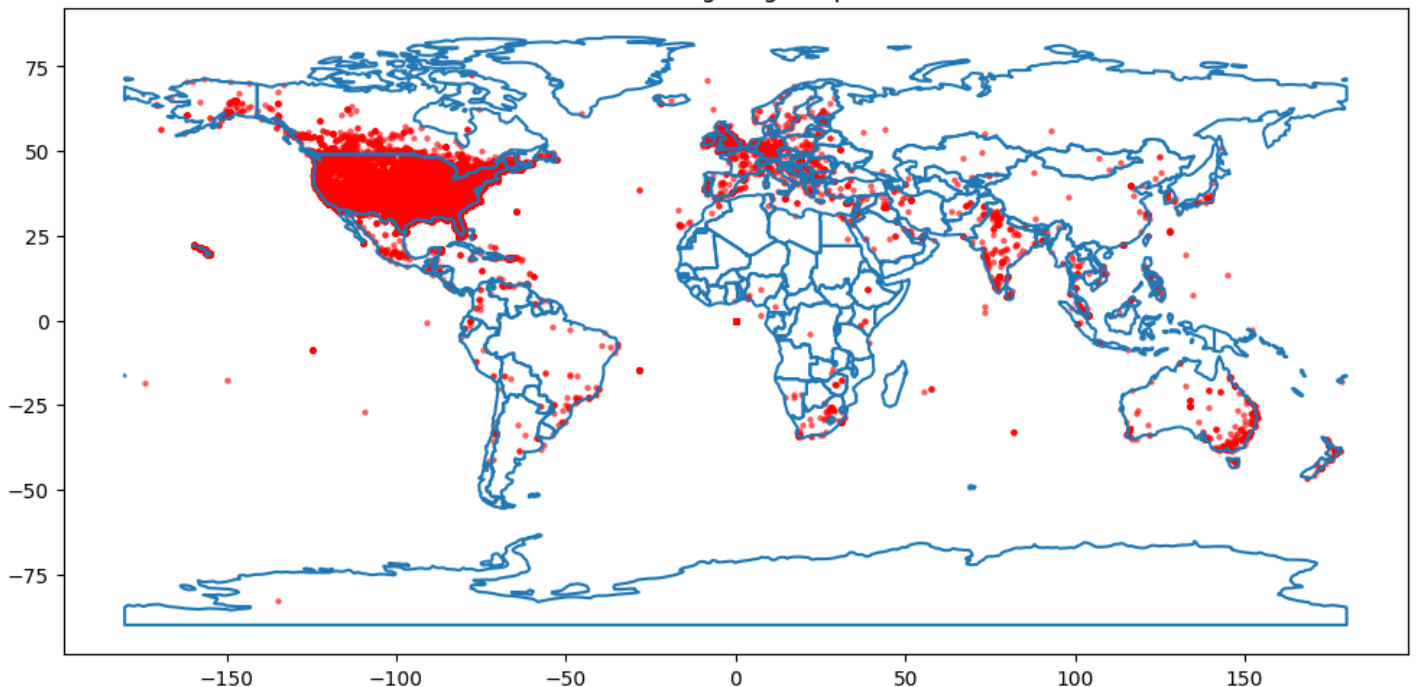
### Locations of UFO sightings

After plotting all the locations of UFO sightings I found that the vast majority of ufo sightings occurred in the US from this dataset. In addition, I found that graphing the locations of UFO sightings within the US closely resembles a population density graph in the US, showing a correlation between population and number of sightings. Out of the USA's 53000 sightings, around 7800 occurred in California, the state with the most reports. The second and third most sightings per country came from Canada and Great Britain with around 2300 and 1500 sightings.

UFO Sightings vs Population Density in the US



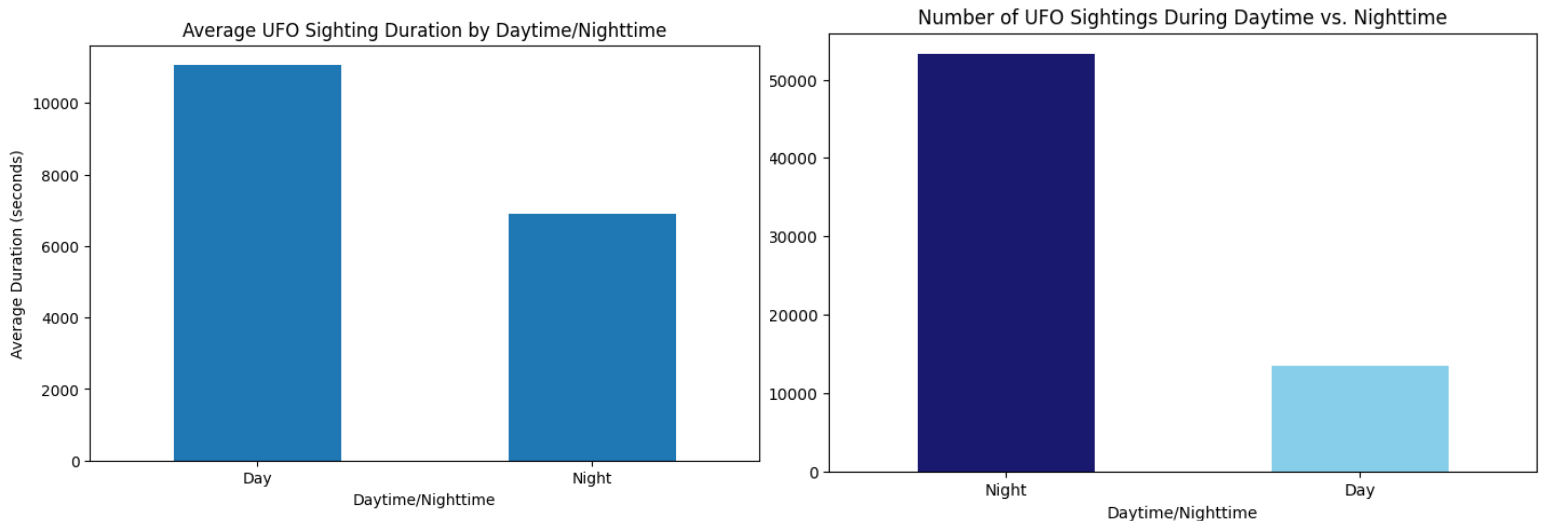
UFO Sightings Map



## Trend #3

### Time of Day

While analyzing the time of day/week that sightings occurred, I found two different trends. The first, while analyzing the sightings during the day and night. I found that the duration of the sightings on average were much longer during the day than at night, but there were vastly more sightings counted at night. This is probably due to the fact that at night, it's hard to see into the sky, making false alarm UFO sightings a lot more common.



I also analyzed the sightings based on the day of the week. I found that moving towards Saturday, the sightings increased, but on Sunday, they fell back down to similar levels as Monday. This could be due to the increase in outdoor time spent as the week progresses.

