

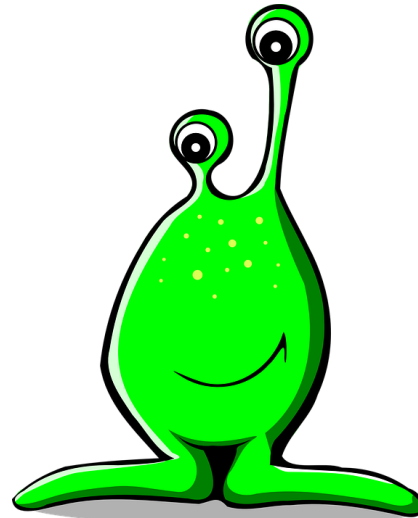
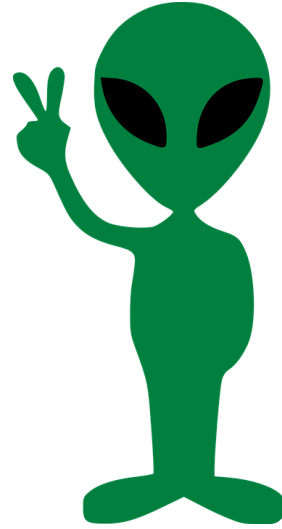
PROJECT 3 BY GROUP 2

UFO SIGHTINGS FROM AROUND THE WORLD.



GROUP 2 MEMBERS:

- Kerry Oostdyk
- Misha Mambully
- Alison McCondichie
- William Berry



OUR PROJECT AND PURPOSE

- UFO sightings date back to earliest civilizations.
- Crash in Roswell, New Mexico.
- UFOs have captured the fascination of human minds.
- Our project explores a dataset of UFO sightings reported from around the world.
- Aiming to identify patterns and trends from these encounters through a web application.
- Interactive platform to explore UFO sighting data.

DATA & DATA CLEANING

- Kaggle dataset
- Lots of data
- Eliminated null values
- Deleted unnecessary columns
- Changed datetime

RESEARCH QUESTIONS

- ARE THERE ANY TRENDS IN REPORTED UFO SIGHTINGS OVER TIME?
- WHAT AREAS REPORT THE MOST SIGHTINGS?
- DO UFO SIGHTINGS CHANGE IN TERMS OF TIME OF DAY AND DURATION?

LIVE DEMO

- <https://kerryoostdyk.pythonanywhere.com/>
- Home page
- Dashboard
- Key Questions
- Map

LIVE DEMO: ARE THERE ANY TRENDS IN REPORTED UFO SIGHTINGS OVER TIME?

- The data shows a spike of UFO sightings after the year 2000. This increase could be because of several factors. The widespread use of phones with cameras and especially with smartphones it became easier for people to capture and report the sightings. Also, the development of online reporting platforms may have encouraged individuals to make reports of these sightings. Let's take a look at the bar graph that illustrates this trend.

LIVE DEMO: WHAT AREAS REPORT THE MOST SIGHTINGS?

- We see that the United States reports the highest number of UFO sightings. This could be due to a number of reasons. There is a lot of fascination among the people because of the sci-fi movies, television shows, and a wider media coverage. The US military also conducts a lot of test flights. These military activities could be mistaken by the public for UFOs. The US has also established a lot of platforms for the reporting of UFOs. This too could be contributing to an increased number of UFO sighting documentation. Let's explore this various visualization.

LIVE DEMO: DO UFO SIGHTINGS CHANGE IN TERMS OF TIME OF DAY AND DURATION?

- To answer this question, we plotted a bubble chart. When looking at our overall data, there seems to be no correlation between the duration of the sightings and time of day. The duration varies greatly with the time of day. You will notice however, that duration length does increase as time goes on. This is shown in the figure on the following page.

LIVE DEMO: MAP

- What trends are indicated by our map?
- The marker clusters help us to zero-in on specific regions where sightings were reported. Some areas are represented with more than one marker, suggesting the sighting was reported by multiple people.
- The heat map significantly shows a higher concentration of reported sightings in the US. If we take a closer look, we can see that the coasts of the US have an especially high density of sightings.

DATA LIMITATIONS AND BIAS

- The data only goes up to 2014.
- There is no standardized method of collecting the data or verifying the data.
- The US is clearly reporting more sightings.
- The data is only on reported sightings instead of observed sightings.

CONCLUSIONS, CALL TO ACTION, FUTURE WORK

- Conclusions:
 - The US has the greatest number of sightings.
 - The coasts have a larger concentration of sightings.
 - No seasonality, no time-of-day factors.
 - Present day has longer observations and more common observations.
- Future Work:
 - Why does America have the most observations?
 - Why do observations get more common closer to present day?
 - More current data is needed.

QUESTIONS?

