



An Analysis of Storms in the Atlantic Basin

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Project Purpose & Inspiration

- Purpose: to discover any significant trends associated with tropical storms and hurricanes in the Atlantic Basin (i.e., North Atlantic Ocean, Gulf of Mexico, and Caribbean Sea) from 1852 to 2021
- Very topical dataset
 - Current impact of Tropical Storm Debby



Design Concepts

- Dashboard design inspired by the National Oceanic and Atmospheric Administration (NOAA) and The Weather Channel website layouts
- Project color palette:
 - Influenced by the bright, distinct colors seen on a weather radar map





Research Questions

1. Are there any trends in the intensity of storms impacting the Atlantic Basin?
2. Has there been an increase or a decrease in the frequency of storms over time?
3. Are there any trends in the appearance or movement of storms over the years?

The background is a light blue sky with white rain falling diagonally. There are four stylized grey clouds. On the left and right sides, there are two palm trees each, with a tall one and a shorter one, both with green fronds and brown trunks. The ground is a solid orange-brown color.

Live Demo

<http://127.0.0.1:5000/home>



Conclusions



Final Notes

- **Bias & Limitations**
- **Future Work**



Works Cited

Data Set: <https://www.kaggle.com/datasets/christinezinkand/storms>

Slide Deck Template:

<https://slidesgo.com/theme/biology-subject-for-high-school-natural-disasters-tropical-cyclone#position-14&related-1&rs=detail-related>

Color Palette: <https://www.color-hex.com/color-palette/114111>

Websites:

<https://www.nhc.noaa.gov/climo/#:~:text=The%20official%20hurricane%20season%20for,-August%20and%20mid-October.>

https://airandspace.si.edu/collection-objects/tiros-meteorological-satellite/nasm_A19650289000#:~:text=Brief%20Description,features%20for%20the%20first%20time.

A stylized illustration of a rainy day. The background is a light blue sky with white diagonal lines representing rain. There are five grey, fluffy clouds scattered across the sky. In the foreground, there is a brown, wavy ground line. On the left and right sides, there are two palm trees each. Each side has a tall palm tree with a green frond and a smaller, shorter palm tree with a green frond. The text "Q & A" is centered in the middle of the image in a dark blue, bold, sans-serif font.

Q & A