SOLAR ECLIPSES

5000 YEARS OF ECLIPSES, A GEOSPATIAL AND TEMPORAL ANALYSIS

This project is focused on creating an interactive dashboard to visualize and analyze solar eclipse data spanning 5000 years, highlighting significant trends and patterns observed both over time and globally.

CHOROPLETH MAP

Shows the geographical distribution of eclipses by mapping the frequency of eclipses each country has witnessed.

TIME SERIES LINE PLOT

Uncovered periodic trends in Eclipse Magnitude over decades.

SCATTERPLOT

Revealed correlations between the various eclipse parameters, such as Gamma and Magnitude .

STACKED RADIAL BAR PLOT

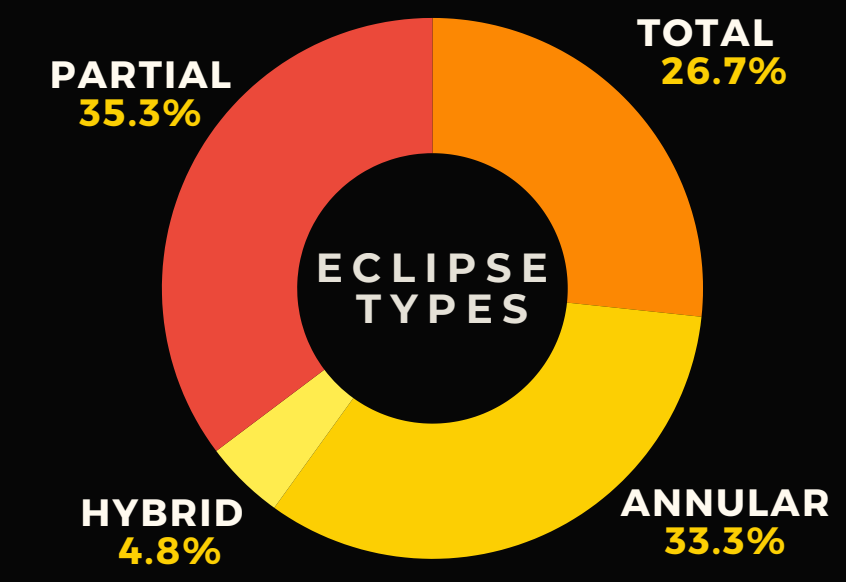
Shows the frequency of daytime and nightime eclipses for each constellation.

MDS ATTRIBUTES PLOT

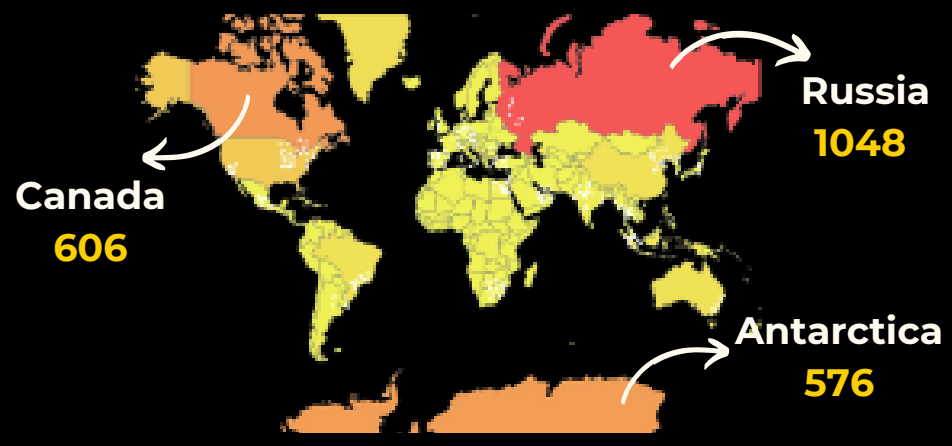
Used the MDS Attributes plot showing how the various eclipse parameters are correlated to each other.

DONUT CHART

Showing the types of eclipses and which type is more common.



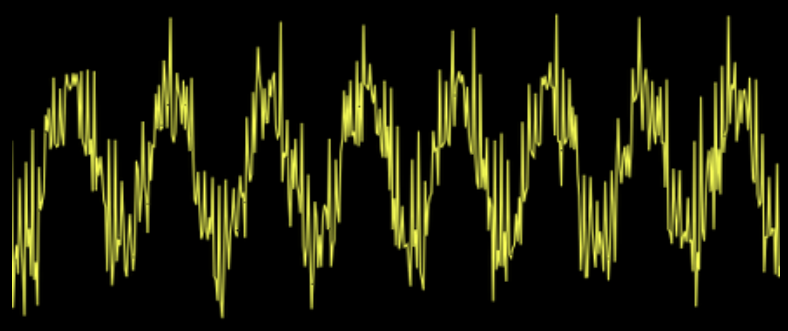
GEOSPATIAL ANALYSIS



Latitude extremities experience a higher number eclipses. Most of these are **Partial eclipses.**

Partial eclipses are more common near the **poles**, whereas **Total eclipses** are more common near the **equator**.

TEMPORAL ANALYSIS



Eclipses are **Cyclic Events.** The average eclipse magnitude repeats over several decades.

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