Discovery of Climate Change

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September 28th, 2022
Agenda

- Why this topic
- What datasets
- How to approach
1. Why Choose this topic

Some Facts:

• The Last Decade Was the Hottest in 125,000 Years

• CO2 Is At Its Highest in 2 Million Years

• We Are Losing 1.2 Trillion Tons of Ice Each Year

• Air pollution Is Both Good and Bad

• Global Warming Is (Partially) Reversible
1. Why Choose this topic

We want:

- Raise people’s awareness about the climate changes.
- Apply what we have learned to delivery a set of effective and interactive diagrams.
- Meet the visualization gap in this field. As this topic has been discussed for years, but they are all lack of either interactivity or readability.
2. What Datasets?

- CO2 Emission by countries Year wise (1750-2022)
  - CO2 Emitted by countries over years from 1750 to 2022

- Air Pollution Level
  - Air Pollution Level in World

- Temperature change
  - Global Warming, Temperature Change, Climate Change
2. What Datasets?

- We want to combine and highlight the most important features/attributes.
- Additional details can be found as the implementation proceed.
- Potential relations can be found across different dataset.
- Other variables may also have relationship with these three datasets —— GDP / urbanization, etc.
3. How to approach

3.1 Objectives:

Detailed diagrams to show important features across countries

Interactive diagrams allow user to explore different patterns

Apply concepts and ideas from textbook and papers to real-world problem
3. How to approach

3.2 Tools:

- Easy to develop
- Wide varieties of libraries

Create informative, customized, and appealing plots to present data in the most simple and effective way.
References:

• https://geo-viz.com/tag/python/
• https://earth.org/data_visualization/11-interesting-facts-about-climate-change/
Thank you!

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