Air Quality Dashboard

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TOC

Problem Overview

Air quality and emissions are closely intertwined. With rising resource demand and climate change, air pollution is an important topic to keep track of. This project is aimed a created an interactive dashboard to make pollutant concentration data easily accessible to all.

Data

The data was sourced from Emissions API, a free to use tool for easy access to satellite data for everyone.

Data storage performed in local MongoDB and python pickles

Locations

61

Different Countries

Volume

154K

Documents (rows) of Data

Pollutants

4

Methane, Carbon Monoxide, Ground-level Ozone, and Nitrogen Dioxide

Pipeline

Collect Data from API
- Request API and get data

Query MongoDB/Clean Data
- Pipelines /Aggregates
- Organize messy json
- Nulls and Time format

Organize on Streamlit App
- Add containers and user inputs
- Deploy with Heroku

Store into MongoDB
- Locally for Initial DB
- Cloud for Map data

Plot with Plotly
- Top 10 Worst bar chart
- Historical Line Charts by country

Results

Thank you.