**Project 3 Proposal**

**Dashboard of Air Pollution in the United States**

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**Summary**

For our project we would like to analyze air quality data for the United States utilizing data from data.gov. This data includes type of air pollution, city, date and population. With this data, we would like to create a javascript dashboard with interactable graphs and maps to explore the air quality dataset.

**Data Sources**

* <https://www.epa.gov/air-trends/air-quality-cities-and-counties>
  + County level dataset and city level dataset

**Project Schema**

1. Data and Delivery
   1. We will load our datasets into a sqlite file on gituhub for easy access.
   2. Using python, we will create a flask API that will reference the sqlite file so that the javascript code can fetch the data
2. Back End
   1. We will use leaflet and plotly to show and map the data from the flask API
   2. Additional javscript libraries
      1. Jquery – different option for querying API data
      2. Chartjs – additional charting
3. Visualizations
   1. Heat map by US city with a filter for each particulate type
   2. Line plot by city of pollution overtime (filter for city)
      1. Use US map with markers for each city to filter the line plot
   3. Choropleth map of US county by pollution levels
   4. Overall US summary statistics