**CSE 599 B1 Project**

Visualization of Climate change & its correlation with pollution

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* **What is your data?**
* US Pollution Data: <https://www.kaggle.com/sogun3/uspollution/downloads/uspollution.zip>
* Climate Change data (global land temperature) <https://www.kaggle.com/berkeleyearth/climate-change-earth-surface-temperature-data/downloads/GlobalLandTemperatures.zip>
* **Who are your users?**
* Environmental Activists and Climate change advocates.
* This project can serve as an eye opener to people denying climate change (like the president-elect :/ ).
* Activists working against the utility companies denying adverse impact of pollutants on climate.
* **What questions are users asking?**
  + How does average land temperature map across the globe?
  + Which are the hottest countries in the world?
  + What is the trend of temperature change over the years? Is global warming real?
  + What are the state wise mean for the various pollutants ( NOx, O3, CO) in US?
  + What is the trend in amount of pollutants over the year?
  + Does the pollutant trend adhere to the temperature rise trend?
* **What are the use cases (user-system interactions) to answer their questions?**
* Mapping the average temperature on a globe.
* Bar plot of countries according to the average temperature.
* Plot showing the average global land temperature over the years.
* Plot showing the average land temperature of each continent over the years.
* Scatter plots of mean pollutant value over the years and across US states.
* Plots showing state wise change in pollutant gases.
* Plot relating temperature & mean pollutant value.
* **What issues are there ("known unknowns") with building your system?**
* Visualization tool to create state wise plots for the pollutants.
* Visualization tool for creating a dynamic globe showing temperature of the countries.