Geospatial Report

ITCS 4123/5123

Timothy Hayduk, Willis Fulmer, Jesse Pinkston

As part of our final project, we have implemented several geospatial techniques that were outlined in the class presentations. The data set we used was the EPA Toxic Release data, which tracks where releases occurred by year, as well as the amounts, types of chemicals, etc.

The first and foremost method is geomapping, which we have done using a 3D map of the United States. The map is used like a state-shaped bar graph to show the total amount of chemicals released per state.

The second is the choropleth method, which colors a geomap based on the data. Currently, the states are colored on a red-green scale based on the total amount released in that state. For our final implementation of our project, we will be changing this to represent several different values. These values will be selectable using checkboxes next to the map, and will update dynamically, allowing the user to switch the data they are viewing.

Alongside the geomap, we display several pie charts. These pie charts are generated by clicking on up to three states, and they display the breakdown of the top 10 chemicals that were released in that state. These pie charts can be hovered over, and the corresponding chemical will be highlighted in all three pie charts, if they exist.

Example screenshots:



