ANALYSIS
ON
WILD FIRES IN THE USA

PRESENTED BY

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QUESTIONS ASKED:

- How many wild fires were there in the USA?

- Which states / regions are the most prone to the wild fires?

- Where were the biggest fires?

- What caused the fires?

SOURCE:

From Karen Short, 2015. "Spatial wildfire occurrence for the United States 1992-2013 [FOA_FOD]

1.88 Million US Wildfires

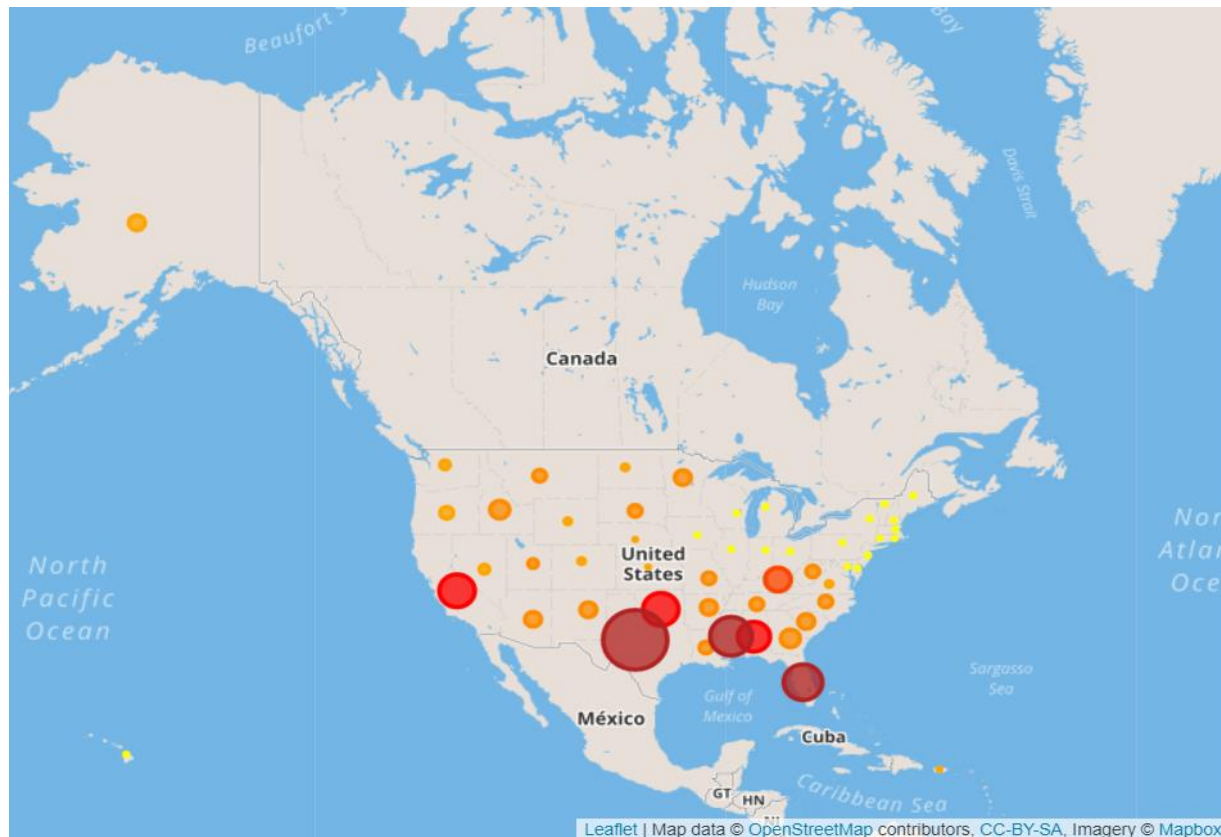**kaggle.com:** 24 years of geo-referenced wildfire records

CLEANUP PROCEDURE / BACKEND CREATION

- Down load sqlite file from Kaggle.com. Couldn't read it. Used another dbase

- Pull it in pandas.

- Delete extra columns.

- Renamed columns.

- Reduce records from 1.8m to 140,000 by using only those fires above 25 acres.

- Team members created the dfs related to their own graphs

- Pull the required data through app.py file.

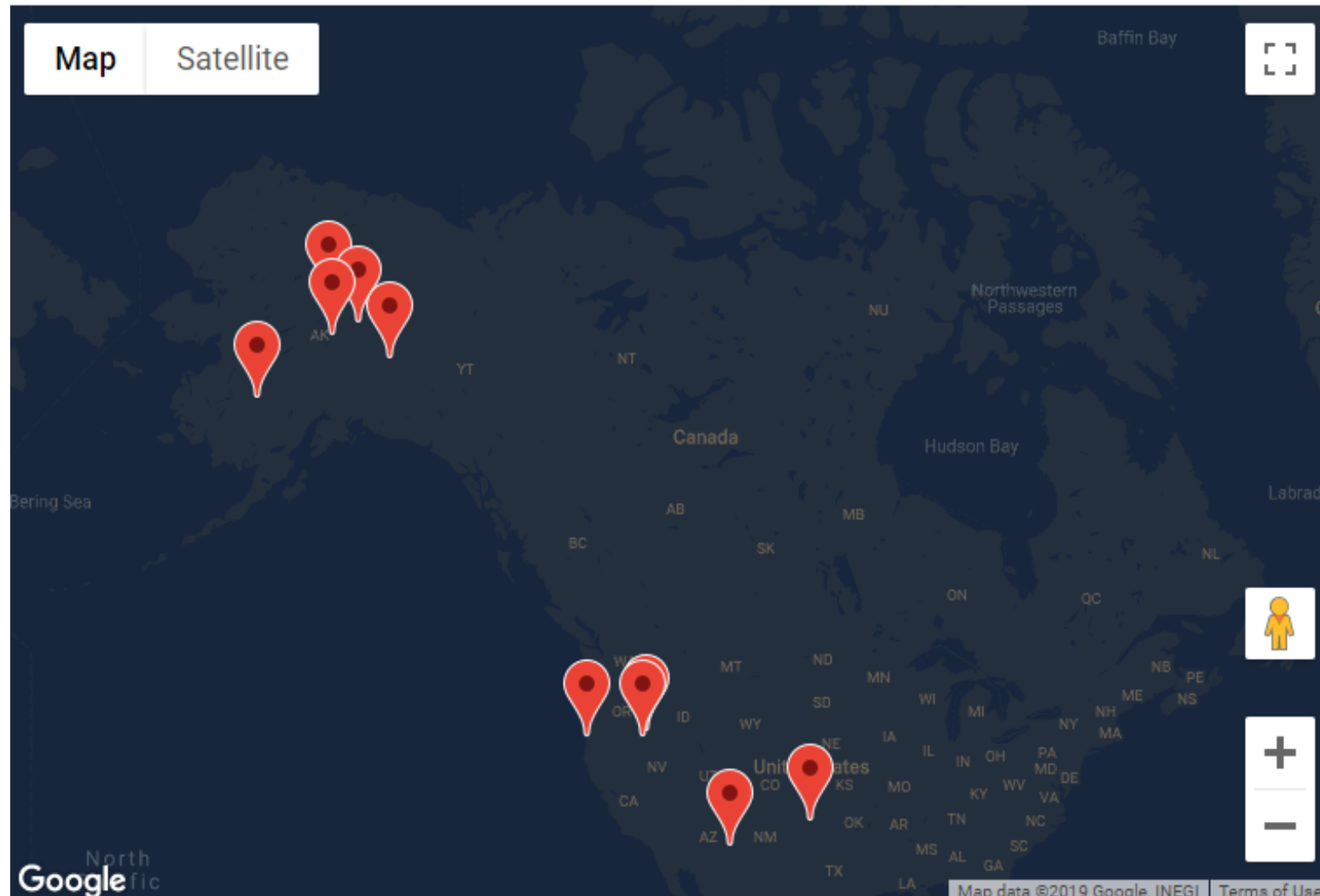- Creating the routes and connecting them to the front end

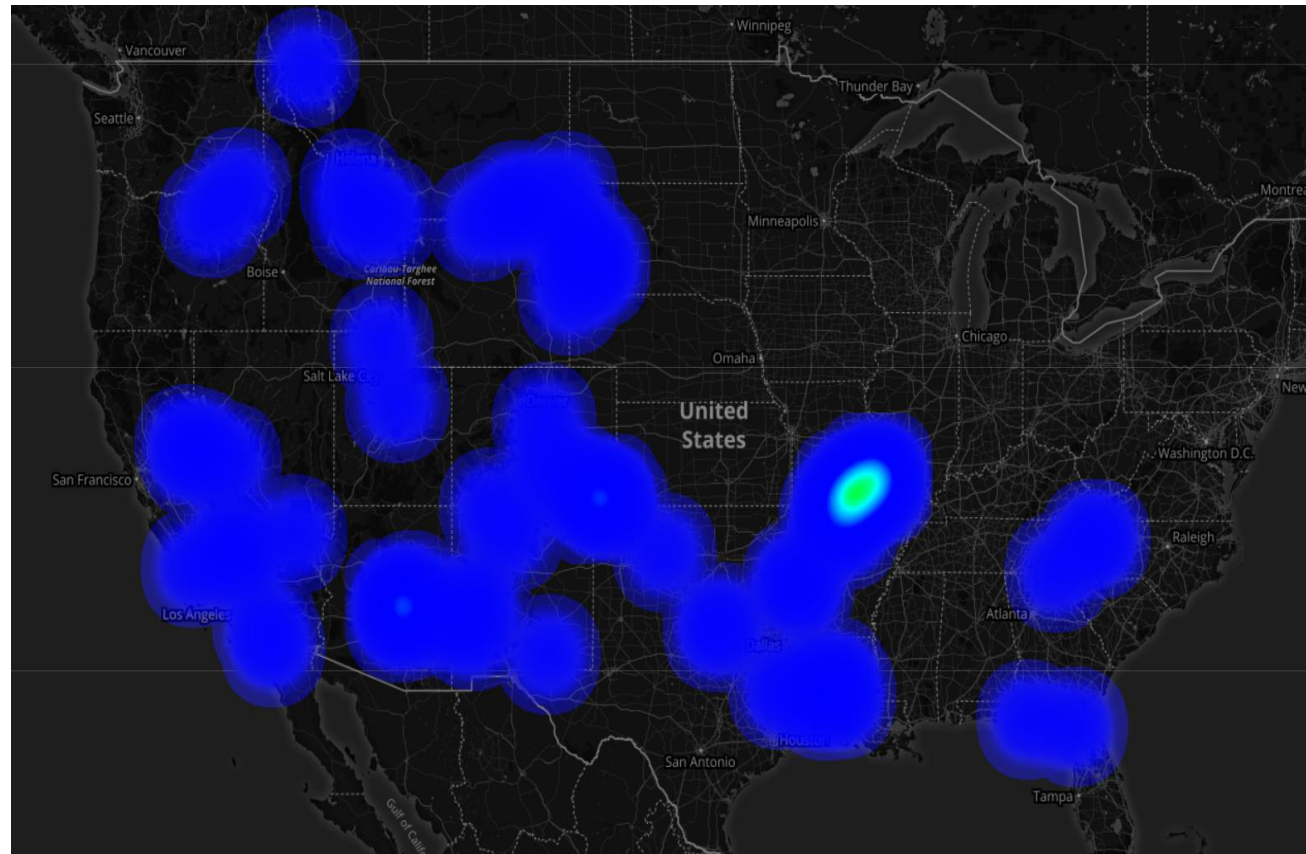# NUMBER OF FIRES PER STATE

HTTP://127.0.0.1:5000/STATES

TOP TEN LARGEST FIRES FROM 1993 – 2013

HEAT MAP OF THE REGIONS

HTTP://127.0.0.1:5000/REGIONS

COMPLETING FRONT END REQUIREMENTS

- Creating webpages using the HTML

- Using CSS files.

- Creating a common styling for all pages through bootstrap, including the navigation bar

  - Mimicked the weather analysis homework to create navigatable pages

- Creating maps with Leaflet / google maps

TECHNOLOGIES USED:

Front End

- HTML
- CSS
- Javascript
  - D3
  - Google Maps
  - Leaflet
  - Bootstrap

Back End

- Python
- Pandas

DataBases

- Sqlite
- CSV files

ANALYSIS AND CONCLUSIONS

- The regions most affected by the phenomenon of wildfires were in Alaska and Texas

- States in the north east had less fires compared to everywhere else in the country.

- The most wildfires from 1993-2013 took place in Texas.

- The most severe wildfires in terms of number of acres destroyed were in Alaska.

LESSONS LEARNT

- The order in which the source files are lined up in the index files matter a lot.

- Initially used D3 to load in CSV data, had to import using JSON instead

- Leaflet.js file is a necessity to render leaflet maps

- All files in a project should be on the same version of the source files(we learnt this the hard way).

- Bootstrap styling overrides all other css styling.

- Huge database give you huge trouble, making the rendering of maps very slow.

- Trouble learning Google Maps API

THANK YOU