Interactive Choropleth Map Dashboard
Visualizing Data from the Bureau of Labor Statistics

Justin, Hannah, Rob, Leanne, Lori

BLS Interactive Choropleth Map

Bureau of Labor Statistics

Data Jobs

US Data Positions

Salary & Wages

Tools

Jupyter Notebook

HTML/CSS/JS

SQL

Project Outline

Displaying an interactive dashboard to show trends in data science employment, using data from the Bureau of Labor Statistics.

◈ Pulled data from the Bureau of Labor Statistics for May 2020

◈ Cleaned and filtered data in Python/Pandas/Javascript

◈ Geojson access through a flask API

◈ Created dynamic maps and tables with Javascript

◈ Created an HTML dashboard to hold our visualizations

B.L.S. Job Codes We Tapped

We looked at a B.L.S. employment summary data by state for the month of May 2020 and tapped the following job codes

- 15-1211 Computer systems analysts

- 15-1221 Computer and information research scientists

- 15-1245 Database administrators and architects

- 15-2031 Operations research analysts

- 15-2041 Statisticians

- 15-1251 Computer programmers

- 15-1257 Web developers digital interface designers

- 15-2098 Data science mathematical science occupations all other

javascript data wrangling

- staged csv's w/python&pandas filtering and filename assignment

- used d3 to define js objects for each csv

- then used javascript for the majority of the data processing

- script generates unique variable names for each plotting dataset

- script then calls a plotting dataset via user input

- script updates plotting data and then refreshes table and map

- script dynamically assigns colors based on called dataset values

(1664) ["Alabama_ordered_hourly_wages_summary_for_jobCode_15_1211", "Alabama_ordered_annual_wages_summary_for_jobCode_15_1211", "ary_for_jobCode_15_1211", "Alaska_ordered_annual_wages_summary_for_jobCode_15_1211", "Alaska_ordered_wages_summary_for_jobCode_mary_for_annual_wages_summary", "Alaska_ordered_wages_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for__annual_wages_summary_for_jobCode_15_1211", "Arizona_ordered_wages_summary_for_jobCode_15_1211", "US_ordered1211", "Arkansas_ordered_wages_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", "California_ordered_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", "Colorado_ordered_hourly_wages_summary_for_jobCode_ered_wages_summary_for_jobCode_15_1211", "Connecticut_ordered_hourly_wages_summary_for_jobCode_15_1211", "Connecticut_ordered_an_de_15_1211", "Delaware_ordered_hourly_wages_summary_for_jobCode_15_1211", "Delaware_ordered_annual_wages_summary_for_jobCode_15_dered_hourly_wages_summary_for_jobCode_15_1211", "District of Columbia_ordered_annual_wages_summary_for_jobCode_15_1211", "Distr_wages_summary_for_jobCode_15_1211", "Florida_ordered_annual_wages_summary_for_jobCode_15_1211", "Florida_ordered_wages_summary_fo_gia_ordered_annual_wages_summary_for_jobCode_15_1211", "Georgia_ordered_wages_summary_for_jobCode_15_1211", "US_ordered_wages_su_de_15_1211", "Hawaii_ordered_wages_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", "Idaho_ordered__summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", "Indiana_ordered_hourly_wages_summary_for_jobCode_15_1211", "Indiana_ordered_annual_wages_summary_red_hourly_wages_summary_for_jobCode_15_1211", "Iowa_ordered_annual_wages_summary_for_jobCode_15_1211", "Iowa_ordered_wages_summ_Kansas_ordered_annual_wages_summary_for_jobCode_15_1211", "Kansas_ordered_wages_summary_for_jobCode_15_1211", "US_ordered_jobCode_15_1211", "Kentucky_ordered_wages_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", "Louis_red_wages_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", "Maine_ordered_hourly_wages_summary_for_jobCode_15_1211", "Maine_ordered_annual_wages_summary_for_jobCode_15_1211", "US_or_dered_wages_summary_for_jobCode_15_1211", "Maryland_ordered_annual_wages_summary_for_jobCode_15_1211", "Maryland_ordered_wages_summary_for_jobCode_15_12_11", "Massachusetts_ordered_hourly_wages_summary_for_jobCode_15_1211", "Massachusetts_ordered_annual_wages_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", "Michigan_ordered_hourly_wages_summary_for_jobCode_15_1211", "Michigan_ordered_annual_wages_summary_for_jobCode_15_1211", "Michigan_ordered_wages_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", "Minnesota_ordered_hourly__wages_summary_for_jobCode_15_1211", "Minnesota_ordered_annual_wages_summary_for_jobCode_15_1211", "Minnesota_ordered_wages_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", "Mississippi_ordered_hourly_wages_summary_for_jobCode_15_1211", "Mississippi_ordered_ann_ual_wages_summary_for_jobCode_15_1211", "Mississippi_ordered_wages_summary_for_jobCode_15_1211", "US_ordered_wages_summary_for_jobCode_15_1211", …]

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▶ [200 … 299]
▶ [300 … 399]
▶ [400 … 499]
▶ [500 … 599]
▶ [600 … 699]
▶ [700 … 799]

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flask API provides access to the states geojson

created a flask API to serve up the states plotting data source

Leanne

sql screenshots

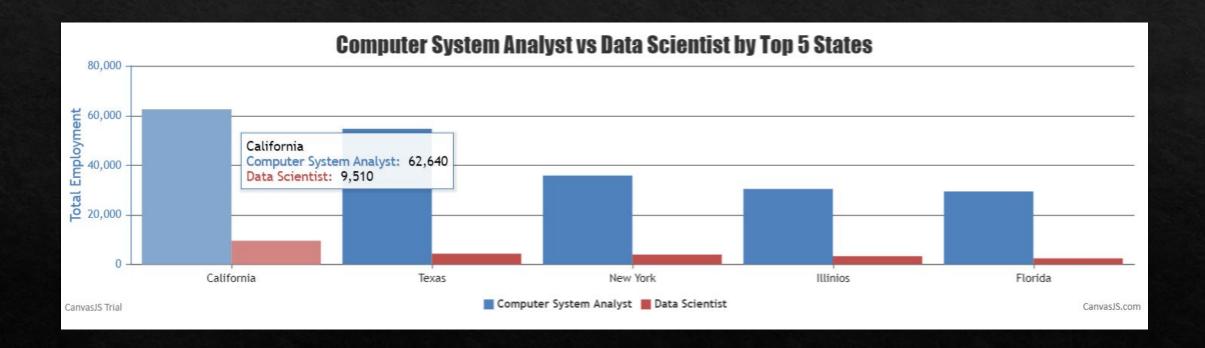# Utilized CanvasJS and UnderscoreJS

Sources

Data Source - https://www.bls.gov/oes/current/oes151245.htm

Visualization Source - https://leafletjs.com/examples/choropleth/

Project Link - https://github.com/hannaholson/Project2.git