Project 3 – Data Related Job Market

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# Project Purpose:

To aid job seekers with a tool to better understand the tech industry in various parts of the world. This includes the present job demand for data related roles such as Data Scientist, Data Engineer, Data Analyst, and Machine Learning roles. This tool will also include mental health survey responses to provide some insight into the work-life balance, which is an important factor in picking a job. The project scope includes job postings in Canada, United States, Singapore, and the United Kingdom.

# Data Sources:

1. Web scrapping from Indeed (for Canada, US, Singapore, and UK job market) [ca.indeed.com]
2. Mental Health survey [include url]
3. University data [include url]
4. API for coordinates

# Proposed Views

1. Heat map to show job demand / postings
2. Gauge indicators to show mental health survey responses (unique to each country)
   * Remote work
   * Benefits
   * Wellness program
3. Bar charts or bubble chart (<https://observablehq.com/@d3/bubble-chart>)
   * Leave (is it easy to take leave?) – they have 5 types of responses so we can use the bubble chart to show the most common response in different countries / states
4. Multiline plot
   * Show university data
     + Number of patents
     + Number of publication
     + Quality of education

**Requirements –**

* Include at least one JS library that was not covered
* Powered by data with at least 100 records
* Include user-driven interactions (menus, dropdown, textboxes)
* Combination of leaflet or plotly
* Must include at least a python flask powered API, HTML/CSS, javascript, and at least one database
* At least 3 views
* Needs to call into one of these four categories:
  + Creative d3 project with an unusual visual
  + Combination of webscrap and leaflet or plotly
  + Dashboard with multiple charts
  + Thick server that performs multiple manipulation of data from a database