Matt Hawley

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CAREER SUMMARY

Well-rounded Software Developer dedicated to helping others make powerful decisions through data engineering and visualization. Cultivated strong analysis and presentation skills from professional certification in Data Analytics and Bachelor's in Computer Science minoring in Mathematics. Works to develop articulate collaboration across teams alongside complete, concise technical solutions within deadlines. Proven ability to explain abstract concepts to varied audiences through teaching experience, and demonstrated a history of outstanding character through attainment of Eagle Scout Award.

COMPUTER SKILLS

General Programming: Python, JavaScript, HTML, CSS, VBA

Operating Systems: Windows, Mac, Linux

Data: PostgreSQL, JSON, XML, SQL, NoSQL, MongoDB

Web Development: D3, Node, Express, Flask

Tools: Tableau, Pandas, Matplotlib, Plotly, Scrapy, GraphQL

CI/CD: Git, Jenkins, Nomad, RabbitMQ, Consul

WORK EXPERIENCE

Data Engineer, Gene By Gene, Houston, TX 2021 – 2023

- Store and serve DNA data for visualizing family trees and genome sequences to businesses and consumers
- Debug and resolve disruptions in data pipeline involving format errors and unexpected results
- Orchestrate microservices using Python servers, databases, messaging queues, and code repositories
- Optimize code for speed and space performance

Automations Analyst, PreCheck, Houston, TX 2019 – 2021

- Analyze web scraping agents that conduct daily and monthly background checks for healthcare professionals
- Build, test, and maintain production agents using Scrapy web scraping platform
- Verify all agents run successfully, scraped data is valid, and data loads properly into client facing tools
- Visualize daily analysis by using Python, Pandas, Excel, and PowerBI to organize runtime data automatically

Teaching Assistant and Tutor, Trilogy Education Services, Houston, TX 2019 – 2022

- Support instruction for Data Analytics and Full Stack Web Development Bootcamps at Rice University
- Provide student support dissecting complex technical concepts: machine learning, data analysis and visualization, Python, JavaScript, SQL, Pandas, Tableau, Scikit-Learn, Node, Express, GraphQL, React
- Foster professional community where students use GitHub to track development, search online forums or ask peers before seeking help from supervisors, and write code according to industry standards

Mathematics Department, Summer Creek High School (Humble I. S. D.), Houston, TX 2014 – 2018

- Taught STEM concepts, emphasizing number sense and technology as strategies for flexible problem-solving in courses such as Advanced Quantitative Reasoning, Algebra II, Math Models, and Geometry
- Collaborated across departments to ensure equal access to and effective techniques for teaching and learning as Algebra II Team Lead
- Focused on identifying and resolving challenges within academics and operations as the math department representative for the Administrative Advisory Council
- Structured math curriculum for district-wide implementation to empower teachers to foster student problem-solving skills as a Curriculum Writer

PROJECTS

Veil of Ignorance | Source Code

Analyzes U.S. Census data (age range, ethnicity, gender, and educational attainment) to generate an average person from a chosen state with a selection of these attributes. Each attribute is selected according to probabilities calculated from Census data. These "people" can be used to create visualizations of how denizens would be affected by new legislation or business decisions. Supplementary charts provide users insight into further statewide analysis, comparing state and federal data.

- **Languages**: HTML, CSS, JavaScript, Python | **Tools**: D3.js, Pandas, Plotly | **Server**: Flask, Jinja, Heroku

D3 Scatterplot Animations | Live Deployment, GItHub Pages | Source Code

This visualization allows the user to choose from various axes to compare multiple aspects of 2014 ACS data involving healthcare and economic issues. Animation and tooltips signal the user when the scatter plot updates according to the user's selection.

- **Languages:** HTML, CSS, JavaScript |**Tools**: D3.js,

Storing Used-Car Search Results | Source Code

Since dealerships can sell used cars from any manufacturer, this project scrapes used car website search results, stores them in a NoSQL database, and reports them as a JSON object, allowing a user to store pertinent data.

- **Languages**: Python, NoSQL | **Tools**: Beautiful Soup, Splinter, MongoDB | **Server**: Flask, Pymongo

EDUCATION

Rice University, Data Analytics and Visualization Boot Camp, Houston, TX 2018 – 2019

- Intensive program providing interrelated training among a broad set of domains: general programming, machine learning, data mining, exploration, visualization, and full stack web development

Trinity University, San Antonio, TX

- Bachelor of Science in Computer Science
- Minor in Mathematics