JOE CHANG

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As a GIS Analyst with three years of experience at Google Maps, I've cultivated a deep understanding of ArcGIS, becoming adept at data management, precise mapping, and meticulous metadata administration. My aspirations in the GIS field extend beyond the map. I'm driven by the vision of harnessing the power of Python and software engineering to propel my career to new heights. Through ongoing learning and hands-on experience in coding, I aim to fuse geospatial insights with cutting-edge technological solutions. My goal is to be at the forefront of innovation in GIS, using these skills to create more dynamic, efficient, and impactful mapping solutions.

GIS SKILLS

- ArcMap/GIS/QGIS
- Project/Data Management
- Cartography
- Technical Writing
- Data Analysis
- Urban Planning
- SketchUp
- InDesign/Illustrator
- Python/ArcPy

CODING SKILLS

- JavaScript/Node.js
- Python
- React
- MongoDB/mongoose
- UI/UX Design
- Browser dev tools
- Express
- Object Oriented Design
- Testing and Debugging
- Source Control Management

EXPERIENCE

Geospatial Data Specialist/Project Team Lead   November 2020 - August 2023
Google Maps
Bothell, WA

- Imported over 100+ Low Emission Zone features into Google Maps for major cities such as London, Paris, and Rome
- Piloted project on Truck GPS covering over 1 million roads across the U.S. and Canada to ensure safe destination routing
- Collaborated with Google Engineers to improve and automate importing processes of large volume spatial features into Google Maps
- Evaluated and used numerous open data sources through ArcGIS to process datasets into a format that is feasible for the automation process
- Documented technical procedures for the Team's workflow to standardize and improve the completion time, effectively improving TAT 140% from Q1 2023 – Q2 2023
- Developed and executed Python scripts for automating data conversion, cleaning, and analysis tasks, drastically improving accuracy and project timeline
- Ensured data quality control and validation through the creation of error-checking scripts and data correction processes

PROJECTS

Google Maps: Implemented over 100 + Low Emission Zones across major European cities. This project has slowly vamped up to include more zones being imported each quarter.
https://www.bbc.com/news/technology-58102651

Full-Stack Software Engineering:
- HTML/CSS framework: https://github.com/josephachang02/FinanceApp

This website allows users to input their own financial spendings to determine their personal spending health. This project highlights the fundamentals of HTML frameworks for HTML, CSS, and JavaScript functions.

- React: https://app.netlify.com/sites/roaring-boba-8ef40e/overview

This project covers multiple components of react such as react-router-dom, API data, useState, and CSS to formulate an interactive NBA Application that allows the user to navigate overarching information for the entire NBA League, as well as the user's selected team to show the specific team information.

- Mongo DB (back-end):

Our final project using Mongo DB to create a back-end database that is correlated to the front-end information so that the user can navigate to certain pages and with the provided information based on the user's selection.

UW/GIS: A collaborative project with Forterra, using census tract data to breakdown the different socio-ethnic factors that contribute to the lack of food access across Snohomish County.
https://forterra.maps.arcgis.com/apps/mapviewer/index.html?webmap=3238846d43634764b230283c2cd65d61

EDUCATION

Full-Stack Developer Boot Camp, Per Scholas   November 2023

   16-week Full-Stack Software Engineering course that dives deep into the fundamental aspects of front and back-end software engineering: MERN stack, UI design, and System Architecture, and Back-End Development.

GIS Certificate, University of Washington   June 2021

   Capstone project in collaboration with Forterra to create an interactive GIS Web Map, visualizing areas of food disparities across Snohomish County, WA and capsulating a written analysis report on the correlations based on census tract data.

Urban Planning, Western Washington University   June 2020

   Condensed 10-week process simulating the roles and responsibilities of Urban Planners, our cohort led community meetings to gather initial feedback, which we then meticulously integrated into a mock comprehensive plan for Ferndale, WA. Our final deliverables included a detailed presentation and Comprehensive Plan brochure.