

EXPERIENCE

GeoVisual Analytics – Remote (based in Denver, CO)

Software Engineer – Aug 2022 - Present

Leading development and maintenance of company's core web application, owning the entire stack from database design (SQL) to backend (C#) and frontend (Vue.js, TypeScript). Independently implement new features from concept to deployment based on product specifications.

Architect and leading migration of legacy codebase from .NET Framework to .NET Core, while rebuilding frontend from mixed Razor/Vue 2 application to a responsive Vue 3 PWA serving both mobile and desktop users. Overhauled app infrastructure by moving deployment providers, migrating repositories from BitBucket to GitHub, and implementing comprehensive CI/CD pipelines in GitHub Actions.

University of Wisconsin-Madison Graphics Lab – Madison, WI

Undergraduate Research Assistant – May 2021 - May 2022

Designed a pipeline for semi-universal storage of robotics environments in URDF format, collaborating with the research team to efficiently generate varied virtual spaces that significantly accelerated robot simulation and testing.

Extended an open-source Blender plugin (Phobos, Python) to expand capabilities of model exporter for building environments.

Researched and tested a 360° camera system, then independently implemented equivalent equirectangular projection in three.js to validate optical distortion findings.

GeoVisual Analytics – Denver, CO

Software Engineer – May 2020 - Jan 2021

Worked with internal users to create web-apps which expedite operations efficiency, and directly with customers to build tools to help manage their operations & visualize data in a meaningful format. (Vue, C#, Mapbox)

Developed library of tools to pipeline both actuals and machine learning-generated data into collections, and used data analysis techniques to automatically generate visualizations of relevant data to a web browser.

Software Development Intern – May 2019 - August 2019

Implemented multiprocessing into heavy image manipulation code using Python's threads library and profiler.

Created automated data backup system to AWS S3 based on Python and light Docker images. Used adaptive bandwidth techniques to improve upload speed by over 15%.

EDUCATION

University of Wisconsin-Madison – B.S. Computer Engineering, Computer Science – May 2022

GPA: 3.54 | Major: 3.71

Relevant Coursework: Databases, Algorithms, Operating Systems, Computer Architecture, Computer Graphics

Languages: TypeScript, C#, Python, JavaScript, SQL (Previous experience with C, C++, Java)

Tools & Technologies: .NET, Vue.js, MS SQL Server, React, React Native, Svelte, Django, Azure, Git, CI/CD