

Jacob R. Stacy

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Employment

MSU RS&GIS – East Lansing, MI

May 2022 - Present

Web Developer and Data Processing Developer

- **Web Development**
 - Redesigning user interfaces, implementing new functionalities, and deploying features seamlessly across various websites using Laravel, Next.JS, and Cascade CMS with vanilla JavaScript.
 - Weekly meetings with clients and designers to ensure alignment with both aesthetic goals and technical requirements.
 - Comprehensively overhauled several MSU Healthcare related sites, collaborating effectively with clients while maintaining creative direction. The improved sites boast user-centric interfaces and modern aesthetics, positioning MSU Healthcare for increased patient acquisition.
 - Overhauled MSU Healthcare's main navigation and key UI elements to enhance user experience and streamline data entry processes, resulting in a more user-friendly platform and reduced workload for the client.
- **Data Processing**
 - Tasked with taking existing Arc GIS models and converting the models to python. Then streamlining the scripts to decrease processing times on large geographical data sets with more than 40,000 entries.
 - Devised an innovative workaround for a critical memory leak in ArcGIS geo-processor, slashing individual processing time by 50% and eliminating script crashes, resulting in a multi-week reduction in total processing time.

Education

Michigan State University – East Lansing, MI

August 2020 – April 2024

Bachelor of Science in Computer Science

- Courses in Object Oriented Programming, Web Development, Mobile App Development, Database Systems, Algorithm Engineering, Operating Systems, Computer Organization and Architecture, and Test-Driven Development

Henry Ford University – Dearborn, MI

August 2018 – June 2020

Various Technical Certificates

- Courses in Electronics, Manual and Computer Aided Design, and Machine Tooling

Skills

- **Front-End Development:** HTML5, CSS, SASS, JavaScript, TypeScript, React, Next.JS, SEO
- **Back-End:** Python, C++, Java, PHP, Laravel, Ruby, Flask, REST API
- **Database Management:** SQL, PostgreSQL, SQLite
- **DevOps:** Docker, Kubernetes, AWS, Google Cloud, GitHub, GitLab, Git
- **Project Management Methodologies:** Scrum, Agile
- **Learning And Skill Acquisition:** Self-taught coding from a young age, resulting in a love for learning and rapid skill acquisition.

Projects

- **Senior Capstone Project:** Led frontend and backend development for a team of five computer science students to create a web application and YoloV8 computer vision model. The project optimized the creation of a dataset, reducing creation time by 95%, to be used for multiple projects including the protection of marine environments like coral reefs from illegal fishing. [More Info Here](#) and [Project Site Here](#)
- **Python Database Management System:** Created a DBSM in Python that mimicked SQLite capable of handling multiple tables and databases, conflict resolution with parallel transactions, joins, and conditionals.
- **Aquarium Desktop App:** Created a C++ application that simulates an aquarium, to showcase my knowledge of Object- Oriented Programing and Test-Driven Development.