JACOB STRAND

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EXPERIENCE

Oregon State University | Media Hub Consultant

September 2023 - August 2025

- · Assisted students with technical media problems through creative problem solving and troubleshooting
- · Maintained company equipment such as DSLR cameras, RODE microphones, laptops, large scale printers, studio spaces, and more
- · Assisted with professional and student photo and video shoots

CHARISMA Lab | Capstone Team

September 2024 - June 2025

- · Led development of multi-part robot-led activity using Choregraphe, Python, Git, and LLMs such as Gemini
- \cdot Followed SDLC and Agile work flow to increase productivity and encourage teamwork
- · Led troubleshooting repairs when robot failed during a live event

ACADEMIC PROJECTS

Business API with MySQL

Google Cloud, Python, Flask, REST API, SQL

- · Independently designed and built a REST API using Flask and Python, backed by a MySQL database to manage small business reviews
- · Optimized SQL queries for faster data retrieval and reliable CRUD operations with error handling
- · Added OAuth authentication to secure API access with role-based permissions
- · Deployed the API on Google Cloud, configuring hosting and integration pipelines to ensure high availability and seamless client-side access

Video Game Guide Website

HTML, CSS, JavaScript, Express.js, MongoDB

- · Independently designed and implemented a full-stack, dynamic game guide website, integrating responsive front-end design with a structured back-end
- \cdot Applied UX/UI principles to enhance navigation and readability, creating a clean layout supported by intuitive CSS styling and persistent access to a help page
- · Built interactive features using JavaScript and Express.js, ensuring smooth data flow between the front-end and MongoDB database

Pokemon Database

php, HTML, CSS, SQL, MySQL API

- · Collaborated to design and implementation of MySQL database of Pokemon information, implementing CRUD operations for robust data management
- · Developed PHP and SQL scripts to dynamically fetch and update Pokemon data, ensuring data integrity and accessibility through a user-friendly web interface
- · Styled the front-end with HTML/CSS to present database results in a clear, organized format, enhancing usability for end users

PERSONAL PROJECTS

Portfolio Website

React, TypeScript, Next.js, Vercel

- · Designed and developed a personal portfolio website to showcase projects and technical skills, leveraging React and Next.js for a modern, component-based architecture
- · Implemented responsive design principles to ensure accessibility and usability across devices
- · Deployed the site using Vercel, gaining experience with cloud-based hosting, build optimization, and continuous deployment workflows
- · Experimented with TypeScript to improve code maintainability and reduce runtime errors through static type-checking

EDUCATION