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Brycen Williams

Looking to contribute to meaningful software.

EDUCATION

Computer Science - Emphasis in Functional Programming

Brigham Young University - Idaho

Graduating December 2024

Projects

Spotify Companion Web App

August 2024 - In progress

- Creating a web application to be used alongside spotify which allows users to filter played songs by categories such as rhythm regularity, tempo, loudness, and sound range.
- The application will automatically skip songs that don't fit these filters, and will allow users to save filter presets and blacklist artists and songs.
- Built using React and Node JS. Utilizes Amazon Web Services for hosting and storage. Uses Spotify API for gathering song info.

Package Tracker Web Service

April 2024 - July 2024

- Created a massively parallel drop-in replacement for all of UPS's package tracking services.
- Used Erlang's OTP library to create a system of supervisors and handlers to allow for highly scalable database read / write operations.
- Built using functional programming practices, such as pattern matching and immutable variables. This was done in the attempt to cut down on unnecessary code, and to simplify error handling during development.
- Created and administered several Digital Ocean droplets. Used the Linux command line to configure each droplet for use in the program, as database, routing, and business logic servers respectively.

Floral Scheduling Web App

April 2024 - July 2024

- Created a calendar web app which allowed a local company to schedule consultations with potential customers.
- Utilizes Google Firestore as well as Google App Script to automate messages between customers and the site.

Other Projects

- Created a desktop application using .NET Framework which allows users to perform CRUD operations on an interactive list of products.
- Used socket programming to create a chess program that allows users to play against each other from different devices on the same network.

Skills

- Proficiency in Javascript, C++, Python, Erlang, Java, SQL, C, and C# programming languages.
- Proficient in writing programs that make use of multithreading and multiprocessing.
- Experienced in application / web app creation using the .NET and ASP.NET frameworks while utilizing MVC design principles.
- Experience with working with the Linux operating system, and with the Linux shell.

WORK EXPERIENCE

Information Technology Specialist

HorizonPWR

March 2023 - January 2024

- Served as system administrator of Google, Slack, and other internal tools. Worked with others to create onboarding plans to reduce confusion in new hires. Led the onboarding processes for over 200 new hires.
- Used strong foundation of systems understanding and empathetic communication skills to guide others in solving their IT-technical problems.
- Created dozens of automations in Salesforce and other tools to allow for large scale data transition to new systems.

Teacher's Assistant - Intro to Programming

Brigham Young University - Idaho

January 2024 - April 2024

- Assisted professor by helping students learn the basics of programming in the Python language.
- Taught students the basics of writing clean code and efficiently debugging.
- Graded and debugged assignments.