Roland Smith

Software Developer

Status: Recent Graduate of Western Washington University
Fields: Software Engineering
Techs: Python, Java, C, JavaScript
Interests: Hiking, Cooking, Gaming, 3D Printing

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Summary

Recent computer science graduate with an interest in backend and cloud development. Experience developing applications in Python, Java, C, and JavaScript while integrating both relational and NoSQL databases. Additional experience in developing applications that run on the AWS cloud environment.

Projects

WWU CS Scheduler - Python — 09 / 2021 - 06 / 2022

· Developed an algorithm to schedule classes that reduced schedule generation time by 2 weeks.
· Assigned professors with over 80% of assignments at the professor's preferred time of day.
· Used a genetic algorithm approach to minimize chances of reaching a suboptimal result.

Analog-to-Digital Converter - C, Assembly (Thumb) — 06 / 2022

· Created an operating system for a microcontroller allowing software reading and control of connected devices.
· Converted values from an analog potentiometer to text for output on a connected OLED display.
· Implemented task interlacing to improve performance and CPU utilization.

AWS Blog App - AWS, NodeJS, DynamoDB — 06 / 2022

· Created a blog app hosted on AWS where signed-in users could create and read posts.
· Containerized application using Docker for easy deployment and scalability.
· Stored user data posts in a DynamoDB database for speed and interoperability with other AWS tools.

Chatroom App - C — 08 / 2021

· Developed a chatroom application where up to 255 users could chat simultaneously.
· Created a connection routine that could handle multiple users trying to connect concurrently for resiliency.
· Built a custom software communication interface using WebSockets to ensure fast and reliable communication.

Deadwood Game - Java — 03 / 2021

· Built a digital version of the board game Deadwood supporting up to 8 players with a graphical user interface.
· Used Model-View-Adapter pattern to enable upgrades to the code without impacting unchanged components.

Education

B.S. Computer Science - Western Washington University — 06 / 2022