Christopher Bloodsworth

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TECHNICAL SKILLS AND INTERESTS

Languages: C++, Rust, Python, Java, C, JavaScript (TypeScript) Developer Tools: Linux, Bash, AWS (S3, EKS, EC2, Lambda), Git, Vim, SonarQube, Docker, Kubernetes, Jenkins **Interests:** Compilers, parallel computing, API design, functional programming

EDUCATION

University of Florida Gainesville, FL Bachelor of Science in Computer Science, Minor in Mathematics January 2019 - May 2024 • GPA: 3.78 • Member of the engineering honor society Tau Beta Pi. State College of Florida Sarasota, FL Associate's Degree in Liberal Arts and Sciences August 2018 - December 2020 • GPA: 3.71 • Designated recipient of "Outstanding Student in Mathematics" award. Experience Software Engineer July 2024 – Present MRSL Real-Time Systems Laboratory Sarasota, FL • Contributing to the maintenance and evolution of a mature, real-time signal processing framework. • Developed a Rust crate to provide a safer, idiomatic interface to the framework's C++ libraries. • Integrated tools to measure code coverage for the framework's domain-specific scripting language and displayed the data using SonarQube. Software Engineering Intern May 2023 – August 2023 MRSL Real-Time Systems Laboratory Sarasota, FL • Worked closely with performance-critical digital signal processing (DSP) applications in C++. • Designed a concurrently-executed DSP algorithm to operate across pods in a Kubernetes cluster. • Programmed entirely on a remote instance hosted on AWS EC2. Peer Mentor (Teaching Assistant) September 2023 – May 2024 CEN3031: Intro to Software Engineering University of Florida • Used Docker to containerize and deploy a full-stack React app for students to contribute to. • Coordinated course materials, held office hours, and gave lectures on topics related to software engineering. Technical Lead September 2022 – Present **Open-Source** Club University of Florida • Managed twice-weekly discussions and working sessions for various open-source projects. • Led a group of students dedicated to the development and usage of APIs of various complexities. PearTerm Ongoing Personal • Created a terminal and shell in Typescript to emulate the functionality of a UNIX/sh system. • Implemented parsing of the shell language aligned with POSIX shell standards. • Created shell built-ins, such as 1s, cd and cat, to interact with an in-memory filesystem. **PLC Language Compiler** April 2023 COP4020: Programming Language Concepts University of Florida • Designed and implemented a compiler for a small academic language. • Included parsing to an AST and code generation that emits Java source code.

Swamp Investigator

SwampHacks IX

- Procedurally generated exploration game made in Python using the PyGame framework.
- Developed world generation using Perlin noise algorithms to create a realistic swamp to explore.

PROJECTS

January 2023 University of Florida