

Christopher Bloodsworth

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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

- Maintained and enhanced core features of a real-time signal processing framework using C++ and Python.
- Developed and integrated tools to measure test code coverage for a domain-specific language, enhancing code quality with SonarQube integration.
- Established automated deployment systems on Jenkins, streamlining the integration of new features.

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++.
- Programmed entirely on a remote instance hosted on AWS EC2.
- Designed a concurrently-executed DSP algorithm to operate across pods in a Kubernetes cluster.

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.

PROJECTS

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 `ls`, `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

January 2023

SwampHacks IX

University of Florida

- 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.

TECHNICAL SKILLS AND INTERESTS

Languages: C++, Java, Python, C, JavaScript (TypeScript), Haskell, Rust

Developer Tools: Linux, Bash, AWS (S3, EKS, EC2, Lambda), Git, Vim, SonarQube, Docker, Kubernetes, Jenkins

Interests: Compilers, parallel computing, API design, functional programming