

## Education

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### Ohio University

M.S. Computer Science (4.0)  
B.S. Electrical Engineering (3.9)  
B.S. Computer Science (3.9)

Athens, OH

Expected August 2025  
Completed May 2023  
Completed May 2022

## Work Experience

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### Graduate Researcher – Ohio University

Aug 2022 → Present

- Engineered a passive wireless temperature sensing system using patch antennas and Tensorflow-based LSTM models achieving a 1.4 °C mean absolute error in temperature estimates.
- Authoring a peer-reviewed publication for Q3 2025.

### Adjunct Professor – Ohio University

Jan 2022 → Jan 2023

- Designed and taught CS4100 (Formal Languages and Compilers) to a class of 50 seniors; received positive student evaluations
- Created Rust-based assignments focused on formal languages and compilers, including custom lexer and recursive descent parser implementations for a subset of C-like syntax
- Conducted weekly lab sessions on embedded systems development using STM32 microcontrollers, covering GPIO, timers, and memory-mapped I/O in both C and ARM assembly

### Software Engineering Intern – Rescon

Aug 2021 → Aug 2022

- Trained next-generation reservoir computing models using TensorFlow, integrated with PX4 on MODALAI drones for real-time obstacle avoidance in GPS-denied environments

## Projects

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**Laser Light Show:** Built a modular C++ real-time game engine on Teensy 4.1 for a laser console projecting vector graphics via galvo-controlled mirrors; integrated custom DAC/amp hardware, UART controllers, and touchscreen UI

**Player Needed:** Built a cross-platform mobile app using React Native and Firebase to connect users through local sports and study events; implemented real-time chat, group timelines, and event filtering in a modular, scalable codebase

**Andromeda Networks:** Architected a scalable multiplayer game server with a custom Lua-based economy and moderation system; hosted over 100 active players

**Home Server:** Deployed and maintained a home server stack with Docker and TrueNAS; self-hosted services like Nextcloud, Plex, Gitea, and NGINX reverse proxy

## Honors and Leadership

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**Senior Engineer of the Year:** Awarded by the Russ College of Engineering

**Student Expo First Place:** Won for Laser Light Show senior design project; competed against the entire senior class of the Russ College Electrical Engineering Department

**Tau Beta Pi – Treasurer:** Oversaw finances, prepared reports, and coordinated chapter events

## Technical Skills

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**Coding Languages:** C/C++, C#, Python, JavaScript, HTML, CSS, Rust, Lua

**DevOps & Tools:** Docker, Kubernetes, Git, Apache, Nginx, .NET

**Cloud Platforms:** Azure, AWS, DigitalOcean

**Databases:** MySQL, PostgreSQL, Firebase

**Modeling & Simulation:** MATLAB, Simulink

**General Skills:** Agile (Scrum/Kanban), Systems Programming, Fullstack Development, Machine Learning, Project Management, Graphic Design (Adobe Suite)