ANDREW EGGLESTON

Software Engineer

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WORK EXPERIENCE

UMass Lowell
Undergraduate Researcher

Working under Prof. Anitha Gollamudi extending LLVM to target Trusted Execution Environments (TEEs) like **Intel SGX** and **arm TrustZone**. Working with LLVM codebase in C++ on intrinsics and optimization passes supporting enclaves. Stated goal is to target the OpenEnclave SDK so that security-annotated LLVM IR can be run on SGX and TrustZone.

📅 May 2024 - Present 　　　　　 📍 Lowell, MA

Genelec Inc.
Technician

Creating tools to streamline shipping procedures. Managing network architecture to support **Dante** networking protocol with DHCP and mDNS. Testing software which managed DSP calibration hardware installed in speakers.

📅 March 2020 - May 2024 　　　　 📍 Natick, MA

Open Avenues Foundation
Student Consultant

Completed a software development industry project at thirdweb. Gained a strong conceptual understanding of blockchain principles, specifically **Ethereum** and the **EVM**. Used **Solidity** to complete a series of programs, culminating in a self-directed project. I made a tictactoe game where players can wager eth on who will win the game.

📅 Fall 2023

Northrop Grumman
Software Engineer

Created an employee management database. Gained experience in **Java EE**, **angular.js**, and **SQL**. Utilized Agile software development process to organize tasks.

📅 June 2019 - August 2019 　　　 📍 Baltimore, MD

PROJECTS

xv6
github.com/andrewegggleston/xv6

MIT 6.1810 Operating Systems Engineering coursework, where I work on openly available labs and exercises. Working towards implementing an eBPF interpreter that will run in the kernel, with the goal of being able to safely run user programs in kernel space. xv6 is written in **C** and **RISC-V** assembly.

OxiDish
github.com/andrewegggleston/OxiDish

A CRUD app to store recipes, queryable by ingredients. Great for figuring out what you can make with ingredients in your fridge. This is just the backend, written in **Rust** with the **Axum** web framework and **sqlx**. Exploring **Elm** and **Vue** frontends.

SUMMARY

Enjoys deep dives into systems – specifically formal verification of software tools.

SKILLS

Languages

`Java` `C` `Python` `Go` `Rust`

Tools

`Linux` `git` `Bash` `SQL` `Nix/NixOS` `Docker` `Coq`

COURSEWORK

Operating Systems
Computer Architecture & Assembly
Organization of Programming Languages
Computer Networking

EDUCATION

UMass Lowell
BS in Computer Science

📅 December 2025

MassBay Community College
AS in Computer Science

📅 December 2023

ACTIVITIES

MassBay ACT CyberRange
Student Worker

📅 January 2022 - Present

Managing a cluster of Xen Hypervisor machines used to host virtual labs (a Cyber Range) for Cyber Security and Computer Science students

UMass Lowell CCDC
Competitor

📅 May 2024 - Present

1st place, NECCDC 2025 @ Roger Williams University.

AWARDS

Dean's List
📅 Fall '22, Spring '23, Fall '23, Spring '24