ANDREW EGGLESTON

Software Engineer

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andreweggleston



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 ran on SGX and TrustZone.

May 2024 - Present

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

PROJECTS

Death By Dagger

github.com/andreweggleston/DeathByDagger

A game resembling 'Senior Assassin,' updated for the electronic age. Made use of the **Slack API** to keep players updated on their status in the game. Created using **Go**, with data hosted on **PostgreSQL**.

OxiDish

github.com/andreweggleston/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**. Currently developing a **Vue** frontend.

SUMMARY

Software engineer who is an eager learner. Looking to gain experience in the field. Enjoys deep dives into systems and understanding what makes a performant solution.

Fascinated by CS foundations and interactive theorem proving!

SKILLS

Languages

Java Go C Python

Tools

Linux git Bash SQL/OracleDB Docker/laC

COURSEWORK

Operating Systems
Computer Architecture & Assembly
Organization of Programming Languages

EDUCATION

UMass Lowell

BS in Computer Science

MassBay Community College

AS in Computer Science

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

AWARDS

Dean's List

MassBay

Fall '22, Spring '23, Fall '23