## ANDREW EGGLESTON

## Software Engineer

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andreweggleston

in andrew-eggleston-a378b178



## WORK EXPERIENCE

#### Hvannis Port Research

#### Software Engineer Intern

Designed in a team of 5 interns a test-harness for **Softbot**, HPR's pre-trade risk assessment system. Worked in **C** to create market and client simulations which used constrained random testing to generate trading events. Achieved a sub- $10\mu$ s response time for our simulation. Gained experience designing concurrent systems.

Needham, MA

#### **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 - May 2025

**Q** 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

#### 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/andreweggleston/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/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**. Exploring **Elm** and **Vue** frontends.

#### **SUMMARY**

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

## **SKILLS**

#### Languages

Java	<b>c</b> ) [1	Python	Go	Rust
Tools				
Linux	git	Bash	SQL	Nix/NixOS
Docker	Co	pq		

## **COURSEWORK**

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

### **EDUCATION**

**UMass Lowell** 

**BS in Computer Science** 

m December 2025

MassBay Community College

**AS in Computer Science** 

math 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