

MARY STRODL

Computer Scientist Seeking a Summer 2024 Co-op

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in in/mstrodl

🐙 mstrodl

EXPERIENCE

Bryx

Software Engineer

📅 August 2022 – Present

📍 Rochester, NY

- Maintaining a large React codebase with a Kotlin and Python backend
- Assisting with embedded software development
- Building a new software update solution based on OSTree

Tools: React, Typescript, Python, Rust, Kotlin, C, Swift

D3 Engineering

Engineering Intern

📅 May 2022 – August 2022

📍 Rochester, NY

- Developed camera drivers for Texas Instruments' RTOS Jacinto platform
- Maintained the Linux kernel and device tree for the Texas Instruments TDA4
- Improved custom build tooling, leading to a 10 minute reduction in build times

Tools: Linux Kernel, C, RTOS, I2C

Geisel Software

Software Engineer Intern

📅 November 2021 – May 2022

📍 Worcester, MA

- Worked on a large CodeIgniter and Nuxt Vue project
- Migrated internal projects from Vagrant to Docker
- Moved codebase to CodeIgniter Forge migrations

Tools: Nuxt, Vue, PHP, CodeIgniter 4

PROJECTS

ColecoVision Emulator

🔗 mstrodl/pen

- Wrote a Z80 (ColecoVision CPU) emulator in TypeScript, from the documentation without external libraries
- Reverse-engineered video and sound processors
- Developed a deep understanding of the internal operations of a computer

Tools: WebAssembly, TypeScript, JavaScript, Parcel Bundler

Gatekeeper Access Control System

🔗 mstrodl/gatekeeper-door

- Gatekeeper is a door lock system to control access to Computer Science House special rooms
- Gatekeeper uses NFC (DESFire) tags to authenticate users
- Wrote both server and door code which pulled data from LDAP and communicated with doors over MQTT

Tools: NodeJS, Rust, Embedded Systems, MQTT, Express, MongoDB, Kubernetes

Elcord

🔗 mstrodl/elcord

- Emacs minor mode to display the current file in a Discord status
- Reverse engineered Discord's RPC protocol
- Over 7,500 downloads on MELPA

Tools: Emacs Lisp

EDUCATION

Rochester Institute of Technology

Computer Science B.S.

📅 Expected Graduation May 2026

SKILLS

Languages

JavaScript TypeScript C C++ Rust
HTML/CSS SCSS/SASS Java Python Swift

Tools

Express Webpack Parcel React NGINX
Linux Git GitHub Bash SQL Kubernetes
Docker MongoDB Flutter

ACTIVITIES

Computer Science House

Member

📅 May 2021 - Present

CSH is a student-run organisation at RIT providing a productive, inclusive, and educational community for everyone interested in Computer Science.

System Administrator

📅 September 2021 - Present

Managed and maintained house-provided computing resources for members, including a Kubernetes cluster, a student-run server room, and other member projects.

Drink Admin

📅 November 2021 - Present

Maintained and stocked CSH's internet-connected vending machines. Wrote embedded software for the machines, a touch screen interface, a CLI drink client, and an Android client.

Rochester & Genesee Valley Railroad Museum

Volunteer

📅 August 2023 - Present

Volunteered in the restoration yard machining, welding, and even working on air brake systems.

Amateur Radio Service

General Class

📅 September 2022 - Present

Licensed to operate in the Amateur Radio Service under the call sign KE2ABY.