

# KLAIRE CURDE

## Software and DevOps Engineer.

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## EXPERIENCE

### Software Engineer Co-op

Bryx Inc. | 📅 Summer 2023

- Enhanced an EMS/firefighter job submission page with a modern stack.
- Migrated from class-based to efficient functional React + TypeScript.
- Focused on reliability, and integrated extensive first responder feedback.

TypeScript React Semantic UI SQL

### DevOps Engineer Co-op

Council Rock | 📅 May 2022 - August 2022

- Maintained an RKE Kubernetes deployment of the Thingsboard IoT application with custom modifications.
- Developed a new Docker Compose deployment for external services.
- Managed a Proxmox cluster, and created optimized multi-stage Docker BuildKit builds.

Kubernetes Docker Docker Compose AWS Proxmox

### Software Engineer Co-op

Council Rock | 📅 Aug 2021 - Dec 2021

- Implemented the CoAP protocol in C++ using the libcoap C library.
- Integrated with ThingsBoard IoT Software's REST API via CoAP.

C++ C Linux CoAP IoT

### Software Engineer Co-op

LightRiver Software | 📅 Jun 2021 - Aug 2021

- Designed and implemented an ingress controller in C using a reverse proxy with Apache for REST API requests.
- Enhanced the netFLEX application with new features using C, JavaScript, and JSON on Linux.

C Linux Apache PostgreSQL HTML/CSS JS

## PROJECTS

### Sparsr

🐙 github.com/klairecodes/sparsr

- Utilized the OpenCV Python API and Whisper AI to capture timestamps and screenshots of videos where a searched phrase was said.

Python OpenCV Whisper AI Podman

### Guestbook

🐙 github.com/klairecodes/guestbook

- Created a content delivery application for cabin guestbooks using protocol buffers, sqlx, and the highly scalable Rust Tokio runtime.

Rust gRPC Protobuf Podman SQLx S3

### RITlinks

🔗 <https://ritlinks.csh.rit.edu> 🐙 github.com/klairecodes/ritlinks

- Developed a site to dynamically generate a list of all websites RIT makes available to students and their uses.
- Deployed on an OKD 4 Kubernetes cluster.

Python Django Docker OKD Bootstrap 4

## EDUCATION

### 🏠 Rochester Institute of Technology

B.S. in Computer Science | 📅 Earned May 2024

Psychology Immersion

AI/ML/LLM & Intelligent Security Concentration

## SKILLS

### Languages

Python C C++ Rust JavaScript  
TypeScript Java Go Bash HTML/CSS  
SQL LaTeX

### Tools

Linux Docker Nginx Kubernetes  
Openshift/OKD Proxmox Ceph  
PostgreSQL Django AWS Protobuf  
gRPC DataDog Puppet

## ACTIVITIES

### 🖥️ Computer Science House

SysAdmin Director | 📅 May 2021 - Oct 2022

- Led a **\$1.2 million+** server hardware donation from Wayfair's decommissioned datacenter, featured in a **Google Cloud** article.
- Rebuilt an enterprise-grade datacenter** with modern hardware, setting up over **three dozen** machines from scratch running **1150 k8s pods** for **400 projects**, **170 VMs**, and **500 terabytes** of Ceph storage.
- Led a team of eight admins for **two years**, and spent **five total years** maintaining the datacenter for over 100 active users.

### 📺 Reporter Magazine

Sysadmin | 📅 May 2021 - May 2023

- Maintained the frontend and infrastructure for a student-run magazine.
- Supported **30+ contributors** and the **entire student body** audience.
- Ensured maximum uptime with automatic certificate renewals, planned Drupal upgrades, and clear communication.

### 🏠 RIT Residence Life

Resident Advisor | 📅 Aug 2020 - May 2021

- Supported and guided **50 dorm residents**.
- Responsible for their health and safety.

🍷 WSET Level 2 Wine Certification