

# KLAIRE CURDE

## Software and DevOps Engineer

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## EXPERIENCE

### 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 set up build vms with 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.
- Communicated with the 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 and used a reverse proxy with Apache to act as middleware for REST API requests.
- Wrote new features and enhancements for the netFLEX application using C, JavaScript, and JSON on Linux.

C Linux Apache PostgreSQL HTML/CSS JS

### Software Engineer Co-op | Bryx Inc. | 📅 Summer 2023

- Wrote a job submission page for fire chiefs to submit details into autonomous reporting systems.

TypeScript React Semantic UI

## PROJECTS

### Guestbook [github.com/klairecodes/guestbook](https://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

### Sparsr [github.com/klairecodes/sparsr](https://github.com/klairecodes/sparsr)

- Used 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

### RITlinks <https://ritlinks.csh.rit.edu> [github.com/klairecodes/ritlinks](https://github.com/klairecodes/ritlinks)

- A site to dynamically generate a list of all the websites RIT makes available to students as well as their uses.
- Runs in a Docker container and is deployed on an OKD 4 cluster.

Python Django Docker OKD Bootstrap 4

## EDUCATION

### Rochester Institute of Technology Computer Science B.S. 📅 Expected: May 2024

## SKILLS

### Languages

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

### Tools

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

## ACTIVITIES

### Computer Science House

SysAdmin Director 📅 | May 2021 - Oct 2022  
System Administrator 📅 | Oct 2020 - Present  
Member 📅 | Aug 2019 - Present

- Spearheaded a \$1.2 million+ server hardware donation from Wayfair's decommissioned datacenter.
- Featured in a Google Cloud article.
- Rebuilt an enterprise-grade datacenter with the modern hardware as part of a team.
- Nearly five years of experience maintaining a datacenter running OKD4 (Kubernetes), Proxmox, Ceph, FreeIPA, and various databases and web services.
- Directed a team of system administrators and stayed in this leadership position within the organization for about two years.

### Reporter Magazine

Sysadmin 📅 | May 2021 - May 2023

- Responsible for maintaining the frontend and infrastructure for reporter.rit.edu, a student-run magazine publication.

### RIT Residence Life

Resident Advisor 📅 | Aug 2020 - May 2021

- Leader on a dorm floor resolving conflicts and mediating discussions.