

KLAIRE CURDE

Software and DevOps Engineer.

@ kcurde@gmail.com

📞 (724) 718-7281

🐙 github.com/klairecodes

🌐 linkedin.com/in/klaire-curde

📄 klaire.codes

EXPERIENCE

Software Engineer Co-op

Bryx Inc. | 📅 May 2023 - June 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

- Designed and maintained three deployment types for customer uses.
- Managed an RKE Kubernetes deployment of a ThingsBoard IoT app fork.
- Created automated optimized multi-stage Docker BuildKit builds.

Kubernetes Docker Docker Compose AWS Proxmox

Software Engineer Co-op

Council Rock | 📅 Aug 2021 - Dec 2021

- Developed middleware for hundreds of IoT devices to communicate with AWS EC2 cloud application instances.
- Implemented the CoAP protocol in C++ using libcoap and low-level Linux networking for a zero-cost in-house solution.
- Communicated with ThingsBoard software's REST API via CoAP.

C++ C Linux CoAP IoT Java

Software Engineer Co-op

LightRiver Software | 📅 Jun 2021 - Aug 2021

- Modernized 30+ year old optical networking control software.
- Designed a more cost-effective ingress controller in C with an Apache reverse proxy for RESTful API requests.
- Enhanced the netFLEX application with new features using C, JavaScript, and JSON on Linux according to specific customer needs.

C Linux Apache PostgreSQL HTML/CSS JS

PROJECTS

Sparsr

🐙 github.com/klairecodes/sparsr

- Engineered an app to find phrases in video media using AI and regex.
- Utilized OpenCV to capture timestamps and screenshots, and Whisper AI to generate standardized parsable subtitles.
- Built with Podman for secure and efficient deployment.

Python OpenCV Whisper AI Podman

Guestbook

🐙 github.com/klairecodes/guestbook

- Created a content delivery application for cabin guestbook entry archival.
- Used protocol buffers, SQLx, and the Rust Tokio asynchronous runtime.

Rust gRPC Protobuf Podman SQLx S3

RITlinks

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

- Developed a site listing most RIT student websites and their uses.
- Assembled using a Bootstrap 4 frontend and Django backend on OKD.

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