

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