

KLAUS CURDE

Seeking a Software Engineer Co-op/Internship. Available May 2022.

@ kcurde@gmail.com

(724) 718-7281

github.com/klauscurde

EXPERIENCE

Software Engineer Co-op | Aug 2021 - Present

Council Rock

- Implemented the CoAP protocol in C++ using libcoap.
- Communicated with the Thingsboard IOT Software REST API.
- Interfaced with a Linux system manager over Omq sockets.
- Build Ubuntu Core Snap packages.

Software Engineer Co-op | Jun 2021 - Aug 2021

LightRiver Software

- 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, Linux/Unix, JavaScript, and JSON.
- Implemented access logging and user access control permissions with PostgreSQL

PROJECTS

ritlinks

github.com/klauscurde/ritlinks | https://ritlinks.com

- Developed a website using Django and self-designed Bootstrap 4 templates 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.
- Implemented administrator accounts to manage adding and removing content with drag-and-drop controls and forms.
- Helps new students understand which services do what, and was well received by incoming Freshmen.

HuntedRC Car

github.com/Hunted_RC_Car

- Designed the electronic internals of a remote control car that can be controlled from up to 1 kilometer away.
- Uses an NRF24L01 wireless module with a self-designed wireless protocol, an L298N H-bridge motor controller, and Arduino Mega and Nano microcontroller boards.
- Coded in C++ and uses a custom designed controller. Internals are a prototype for modifying a Barbie Jeep to be wirelessly controlled as a safe, moving hunting target.

EDUCATION

Rochester Institute of Technology

Computer Science B.S. 3.48 GPA

📅 Graduation: May 2024 (5yr pgrm.)

COURSES

Digital System Design 1 | CMPE-160

- Learned how to design, optimize, and implement circuits, including decoders, multiplexers, adders, flip flops, etc.
- Digital system simulation with VHDL.

Intro to SE | SWEN-261

- A course that dove into software engineering practices.
- Worked as a group using the SCRUM Agile process.
- Learned the Spark framework and automated unit testing.

SKILLS

Languages

Python C C++ Java Bash
HTML CSS JavaScript VHDL

Tools

Linux Django Docker
Bootstrap Apache Kubernetes
Openshift/OKD PostgreSQL
Arduino/MCU

ACTIVITIES

Computer Science House

System Administrator | Oct 2020 - Present

Member | Aug 2019 - Present

RIT Residence Life

Resident Advisor | Aug 2020 - Present