KLAUS CURDE

Software Engineer

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EXPERIENCE

Software Developer Co-op | Jun 2021 - Aug 2021

LightRiver

- Wrote new features and enhancements for the netFLEX application using C, Linux/Unix, JavaScript, and JSON.
- Designed and implemented an ingress controller in C and used a proxy with Apache to act as middleware for REST API requests.
- Implemented access logging and user access control permissions with PostgreSQL.

System Administrator | Oct 2020 - Present

Computer Science House

- Responsible for managing linux based systems, websites and web services.
- Exposure to enterprise-level tech, including RHEL, OKD 4, Kubernetes, Docker, Proxmox, FreeIPA, and Datadog.
- Offer guidance to other members looking to learn devops skills or spin up their own projects.

PROJECTS

ritlinks

github.com/klauscurde/ritlinks

- Used the Python web framework Django to create a dynamically generated website that lists a collection of all the websites RIT makes available to students as well as their descriptions.
- Helps new students understand which services do what, and has administrator accounts to manage adding and removing content as relevant.
- Runs in a Docker container on Openshift/OKD.

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.

LifeSym

github.com/klauscurde/LifeSim

- Programmed a Java application that simulates the human body to provide health recommendations.

EDUCATION

Rochester Institute of Technology

Computer Science B.S. 3.54 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 like SCRUM and Agile.
- Learned the Spark framework and automated unit testing within groups.

SKILLS

Languages

Java	●●●●●
C	●●●●○
Python	●●●●○
Bash	●●●○○
HTML	●●●○○
CSS	●●○○○

Tools

Linux	●●●●●
Windows	●●●●●
Django	●●●●○
Arduino/MCU	●●●●○
Docker	●●●○○
SQL	●●●○○
Bootstrap	●●●○○

ACTIVITIES

Computer Science House

System Administrator Director | Oct 2020 - Present
Member | Aug 2019 - Present

RIT Residence Life

Resident Advisor | Aug 2020 - May 2021

- Utilizes Metabolic Equivalent (MET) data values sourced from an academic paper to calculate an estimate of the amount of calories consumed during specific activities.

CookC

github.com/klauscurde/CookC

- Wrote a small game in Python that exists entirely as an array displayed in a character LCD.
- Runs on a Raspberry Pi Zero W that is connected to the internal power of a ThinkPad X230 laptop.