WILL NILGES

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nilges.me

OBJECTIVE
Seeking a Computer Engineering Co-Op for Summer/Fall 2021

EDUCATION
Rochester Institute of Technology | Computer Engineering B.S.
GPA: 3.43
Expected Graduation: Spring 2023

EXPERIENCE
The Reporter | System Administrator
November 2019 — Present
- Maintain physical and virtual computing services for The Reporter Magazine
- Manage instances of Pritunl Mediawiki, Keycloak, etc. on Proxmox
- Maintain baremetal Nginx and Samba servers to support publication

Council Rock | Computer Engineering Co-Op
May 2020 — December 2020
- Built Yocto, OpenWRT, and Ubuntu Core images for custom embedded devices
- Developed embedded software in C, C++, Java, QML, JavaScript, Python, and BASH
- Used cloud and baremetal services including K8s, ThingsBoard, and Jenkins

Mastodon Design | Software Engineering Co-Op
May 2019 — August 2019
- Reverse engineered communication protocols in C with the goal of simulation
- Designed and built test suites for custom communication equipment in Python
- Designed and built thermal testing software for mil-spec stress tests in Python

Rochester Institute of Technology | Linux System Administrator
August 2018 — May 2019
- Supported and maintained Red Hat Enterprise Linux systems using Ansible
- Patched and protected computing resources for the College of Engineering
- Work with students and professors to build solutions for a variety of projects

PROJECTS
BetterVent | Kotlin, Java | *github.com/WillNilges/BetterVent*
- Room schedule viewer for Android that is lightweight and easy to use
- Uses Google Calendar API to manage events on CSH's main calendar

ShelfLife | Rust, TypeScript | *github.com/WillNilges/ShelfLife*
- OpenShift project management, backup, and monitoring system
- Automatically manages resources, notifies users, and takes backups

Directional AC | C++ | *github.com/WillNilges/DirectionalAC*
- Computer vision-enabled gyroscopic fan control system
- Uses OpenCV to track users and automatically adjust its air stream
- Custom designed 3D-printed chassis

The Death Panel | Rust | *github.com/ComputerScienceHouse/altctrl*
- Led team-based project for Imagine RIT 2020
- Custom-built control panel that interfaces with specialized games and software
- Open source and hackable for use with other games or tools

Octo Dash Curses | C | *github.com/WillNilges/octo-dash-curses*
- Terminal-based frontend and dashboard for OctoPrint
- ncurses GUI useful for monitoring and control, can be accessed remotely

SKILLS
Languages
C, C++, BASH, Rust, ARM Assembly, VHDL, Python, QML, JavaScript, C#, Kotlin, Java

Operating Systems
Red Hat Enterprise Linux, Fedora, Debian, Ubuntu, Arch Linux, PFSense, Cisco IOS

Hardware
Oscillosocopes, Wave Function Generators, Multimeters, Soldering Equipment

Software
Vivado, Quartus II, Modelsim, JetBrains IDE, Qt Creator, Ansible, Proxmox, Portainer, Kubernetes, OpenShift, Jenkins, SonarQube, cmake, GNU make

ACTIVITIES
Computer Science House / Root Type Person
Living-learning community focused on technical projects, knowledge, and skills. Root Type Persons maintain and manage computing resources and web services for members of the house and offer guidance and knowledge for projects

RIT Linux Users Group
Enthusiast group dedicated to developing and spreading Linux knowledge and skills

Scouts of America
Eagle Scout, Order of the Arrow

COURSES
Assembly and Embedded Programming,
Digital System Design II,
Circuits I,
Computer Science II,
Spanish for Science and Tech