WILL NILGES

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nilges.me

OBJECTIVE

Seeking a Computer Engineering Co-Op for Summer 2022

EDUCATION

Rochester Institute of Technology | Computer Engineering B.S.
GPA: 3.45
Graduation: Spring 2023

EXPERIENCE

Qualcomm | Firmware Engineering Co-Op
May 2021 — August 2021

- Worked with the Core Platform PMIC team to design new debugging frameworks
- Implemented framework and user interfaces in Python, C, and CMM Script
- Laid groundwork for future expansion of framework and additional interfaces

Council Rock | Computer Engineering Co-Op
May 2020 — December 2020

- Built Yocto, OpenWRT, and Ubuntu Core images for custom network edge devices
- Built embedded solutions in C, C++, Java, QML, JavaScript, Python, and BASH
- Bootstrapped K8s, ThingsBoard, and Jenkins on baremetal and AWS cloud

The Reporter | System Administrator
November 2019 — Present

- Maintained physical and virtual computing services for writers and photographers
- Architected and built practical solutions for news site and internal services hosting
- Managed instances of Pritunl, Mediawiki, Keycloak, Nginx, and Samba on Proxmox

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
- Created thermal testing software for mil-spec stress tests using Python

PROJECTS

Octo Dash Curses | C | *github.com/WillNilges/octo-dash-curses*

- Terminal-based frontend and dashboard for OctoPrint
- Remote dashboard for monitoring and control built with ncurses
- Support for resizing and multiplexing for true print farm-scale monitoring

CSH OpenShift 4 Cluster

- Boostrapped large-scale cluster for Computer Science House on Proxmox
- Provided Kubernetes-related support and resources for members' projects
- Monitored for and corrected issues as they arose to prevent downtime

Death Panel | Rust | *github.com/ComputerScienceHouse/altctrl*

- Leader of 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

BetterVent | Kotlin, Java | *github.com/ComputerScienceHouse/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
- Built with extensibility and hackability in mind to fit wide array of use cases

SKILLS

Languages

C	QML
C++	JavaScript
BASH	C#
Rust	Kotlin
ARM Assembly	Java
VHDL	CMM Script
Python	

Operating Systems

RHEL	Arch Linux
Fedora	PFSense
Debian	Cisco IOS
Ubuntu	

Hardware

Oscillosocopes
Wave Function Generators
Multimeters
Soldering Equipment
Lauterbach Dongles

Software

Proxmox	Jenkins
OpenShift	SonarQube
Kubernetes	Ansible
Portainer	JetBrains IDE

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

Applied Programming in C
Assembly and Embedded Programming
Computer Organization
Digital System Design II
Digital Electronics
Circuits II
Spanish for Science and Tech