

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: 3.38

Expected Graduation: Spring 2023

EXPERIENCE

The Reporter | System Administrator

November 2019 — Present

- Maintain physical and virtual services for The Reporter Magazine
- Manage Proxmox cluster running essential public and internal tools
- Build, migrate, and patch new services such as Jira and Nextcloud.

Mastodon Design | Software Engineering Co-Op

May 2019 — August 2019

- Designed and built test suites for custom communication equipment
- Reverse engineered and simulated binary messages and signals
- Designed and built thermal testing software for mil-spec stress tests

Rochester Institute of Technology | Linux System Administrator

August 2018 — May 2019

- Supported and maintained various Red Hat systems using Ansible for configuration management
- Patched and protected research computing resources for the Kate Gleason College of Engineering

Online Computer Library Center | Information Technology Intern

July 2015 - August 2015 | June 2017 - August 2017

- Repaired, upgraded, imaged, and deployed computer hardware
- Resolved hardware and software issues across multiple technology platforms

PROJECTS

Directional AC | C++ | github.com/WillNilges/DirectionalAC

- Computer vision-enabled gyroscopic fan control system written
- Uses OpenCV to track users and automatically adjust its airstream
- Custom designed 3D-printed chassis

BetterVent | Kotlin | github.com/WillNilges/BetterVent

- Room schedule viewer for Android
- Easy to configure, use, and customize
- Lightweight and easy on resources

ShelfLife | Rust | github.com/WillNilges/ShelfLife

- OpenShift project management, backup, and monitoring system written
- Automatically notifies admins and backs up project configurations
- Manages and limits resources to stale projects

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

- Completely custom-built control panel for minigame suite
- Custom software, user interface, and protocol that interfaces with game
- To be demoed at Imagine RIT 2020

sampleZone | C | github.com/WillNilges/sampleZone

- Terminal-based audio sequencer
- ncurses GUI
- Built for speed and efficiency

SKILLS

Languages

C, C++, Rust, ARM Assembly, VHDL, Python

Operating Systems

Red Hat Enterprise Linux, Debian, Arch, macOS

Hardware

Oscilloscopes, Wave Function Generators, Multi Meters, Soldering Equipment

Software

Altera Quartus II, Modelsim, JetBrains IDE, VisualStudio, Qt Creator, MessagePack, Ansible, Puppet, OpenShift

ACTIVITIES

Computer Science House

Root Type Person/SysAdmin

Living-learning community focused on technical projects, knowledge, and skills. Root Type Persons maintain and manage computing resources and web services

RIT Linux Users Group

Enthusiast group dedicated to developing and spreading Linux knowledge and skills

FIRST Robotics

Head Electrician, Drive Team Technician

Xtreme Bots Team Captain

Combat robotics competition in a 1v1 style. Custom chassis, electronics, and weapons

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