

# WILL NILGES

willnilges@mail.rit.edu  
github.com/WillNilges  
(614) 940-0388  
nilges.me

## OBJECTIVE

Seeking a Computer Engineering Co-Op for Summer/Fall 2020

## EDUCATION

**Rochester Institute of Technology** | Computer Engineering B.S.

GPA: 3.52

Expected Graduation: Spring 2023

## EXPERIENCE

**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

**Upper Arlington Schools** | Instructional Technology Intern

*January 2016 - July 2017*

- Maintained fleet of 2,000+ MacBook Air laptops
- Assisted students and teachers with hardware and software problems

## PROJECTS

**Directional AC** | C++ | [github.com/WillNilges/DirectionalAC](https://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](https://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](https://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** | C++ | [github.com/WillNilges/DeathPanel](https://github.com/WillNilges/DeathPanel)

- Completely custom-built control panel
- Custom protocol that interfaces with game
- Uses a Teensy 3.6 to control switches and an Arduino to control an LCD

**sampleZone** | C | [github.com/WillNilges/sampleZone](https://github.com/WillNilges/sampleZone)

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

## SKILLS

### Languages

C, C++, ARM Assembly, VHDL, Python, C#, Java

### 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, Circuits I, Digital System Design I, Computer Science II, Intermediate Spanish II