

# WILL NILGES

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## OBJECTIVE

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

## EDUCATION

Rochester Institute of Technology

B.S. in Computer Engineering — 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*

- Cataloged, repaired, upgraded, imaged, and deployed computer hardware
- Resolved various hardware and software issues across multiple hardware 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** | [github.com/WillNilges/DirectionalAC](https://github.com/WillNilges/DirectionalAC)

- Computer vision-enabled gyroscopic fan control system written in C++
- Tracks its user and automatically adjusts its airstream
- Uses OpenCV and Haar Cascades to track human faces
- Custom designed 3D-printed chassis

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

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

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

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

**The Death Panel** | [github.com/WillNilges/DeathPanel](https://github.com/WillNilges/DeathPanel)

- Completely custom-built control panel
- Custom protocol that interfaces with game
- Written in C++

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

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

## SKILLS

### Languages

- C
- C++
- BASH
- Python
- C#
- Java
- MATLAB

### Operating Systems

- Red Hat Enterprise Linux
- Fedora
- Debian
- Ubuntu
- Arch
- Manjaro
- macOS

### Tools

- Oscilloscopes
- Wave Function Generators
- Multi Meters
- Soldering Equipment

### Software

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

### Activities

- Computer Science House
  - Living-learning community focused on technical projects, knowledge, and skills
  - Root Type Person Status
- RIT Linux Users Group
  - RIT UNIX Enthusiast group dedicated to developing and spreading UNIX knowledge and skills
- FIRST Robotics
  - Head Electrician
  - Drive Team Technician
- Scouts of America
  - Eagle Scout
  - Order of the Arrow