

# WILL NILGES

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## SKILLS

### LANGUAGES

- C
- BASH
- Python
- ARM
- Cortex M0+
- Assembly
- C++
- Rust
- QML
- VHDL

### OPERATING SYSTEMS

- RHEL
- Debian
- Arch
- Cisco IOS
- Fedora
- Ubuntu
- PFSense

### HARDWARE

- Oscilloscopes
- Wave Function Generators
- Trace32 Dongles
- Multimeters
- Soldering Equipment

### SOFTWARE

- Proxmox
- OpenShift
- Docker
- GNUMake
- JetBrains IDE
- Kubernetes
- Podman
- CMake
- Vim
- Qt Creator

## ACTIVITIES

### COMPUTER SCIENCE HOUSE

SysAdmin, Executive Board  
Living-learning community focused on technical projects, knowledge, and skills. Managed computing resources and web services for members to facilitate project development.

### RIT LINUX USERS GROUP

Worked alongside enthusiasts and experts to spread knowledge among the greater RIT community through presentations and meetings.

### SCOUTS OF AMERICA

Eagle Scout, Order of the Arrow  
Completed Eagle Project for Christian youth organization.

## EDUCATION

### ROCHESTER INSTITUTE OF TECHNOLOGY

B.S. Computer Engineering  
May 2023 | GPA: 3.45

## EXPERIENCE

### QUALCOMM

May 2021 — August 2021

### Firmware Engineering Co-Op

- Designed new debugging frameworks to accelerate development
- Implemented polished and functional system and UI in **Python** and **C**
- Laid groundwork for future expansion of framework and additional interfaces

### COUNCIL ROCK

May 2020 — December 2020 & August 2021 — December 2021

### Computer Engineering Co-Op

- Built new, more maintainable firmwares for custom embedded devices
- Developed new features, addressed customer issues, and managed roadmap
- Designed **Kubernetes** infrastructure for product to improve flexibility

### THE REPORTER

November 2019 — Present

### System Administrator

- Architecting and building practical solutions for article, podcast, and services hosting to boost employee productivity
- Managing instances of **Prituni**, **Mediawiki**, and **Samba** on **Proxmox**
- Maintaining **Drupal** CMS and **Flask** frontend served with **Nginx** on **Docker**

### MASTODON DESIGN

May 2019 — August 2019

### Software Engineering Co-Op

- Designed test suites for custom communication equipment in **Python** and **C++** to streamline QA
- Created thermal testing software for mil-spec stress tests to boost product reliability

## PROJECTS

### INKPATH (C)

GITHUB.COM/WILLNILGES/INKPATH

- Xournal++ plugin for transcribing whiteboard notes
- Allows for faster note taking and flexible adaptation of lecture materials
- Contributed API code to popular open source project

### CSH OPENSIFT 4 CLUSTER

- Bootstrapped 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

### IMAGINERIT 2022: CSHACKS (C / Python / Rust)

GITHUB.COM/COMPUTERSCIENCEHOUSE/IMAGINE2022-EMBEDDED

- Campus-wide BLE-based asset tracking demo with a fun twist
- Leading and managing multi-disciplinary project by maintaining schedule, taking notes, facilitating communication, and running meetings