

Spencer Kurtz

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EDUCATION

Rochester Institute of Technology – 3.58 GPA
Master of Science in Computer Science

Expected Dec 2025

Rochester Institute of Technology – 3.84 GPA
Bachelor of Science in Computer Science
Minor in Cybersecurity, Minor in Networking

Dec 2024

EXPERIENCE

Software Engineering Intern - Security Platform
Rivian and Volkswagen Group Technologies

May – Aug 2025
Palo Alto, CA

- Designed and implemented a secure SSH access system for vehicle ECUs using short-lived certificates and principal-based authentication.
- Built an internal Go service on AWS ECS to validate employee tokens and VINs, issuing signed SSH certificates via AWS KMS.
- Extended Yocto builds to integrate certificate-based authentication into ECU operating system.
- Streamlined developer workflows by creating a one-command internal tool that generated ephemeral certificates and pre-built SSH commands for secure ECU access

R&D Software Engineering Co-op
Baxter

Jan – Aug 2024
Skaneateles, NY (Hybrid)

- Developed cutting-edge vital monitoring products for a medical technology innovation team.
- Created internal development tool for dozens of engineers to accurately detect pupils with OpenCV from given photos. Provided regular updates and bug fixes for the internal tool.
- Setup development environment for 32-bit C++ code in Ubuntu 20.04. Debugged, documented, and integrated C++ code into a Python development tool.

Cybersecurity Engineering Intern
Moog Inc.

May – Aug 2023 (Full Time), Aug – Dec 2023 (Part Time)
Elma, NY (Full Time), Remote (Part Time)

- Collaborated with a team of three interns to develop and present an internal web app using Dotnet 6.0, React, and MySQL on Ubuntu Server 22.04.
- Established a comprehensive penetration testing strategy for an internal tool using Kali Linux, resulting in the identification of over 20 security vulnerabilities, enhancing the web application's resilience against potential cyber threats.
- Pioneered a Python automation tool with Tkinter to validate the maliciousness of domains, hashes, etc., from a weekly report. Used regex to grab hundreds of indicators, performed analysis, and output results in a human readable format.

Networking Intern
Seminole County Public Schools

Jun 2020 – Aug 2020
Seminole County, FL

- Handled router and switch configuration and installation in dozens of schools across the county.
- Learned how to develop and troubleshoot an advanced wireless network with hundreds of users.

PROJECTS

BrickHack 11 Hackathon – Aphasia Care App – Best UI/UX & Best Use of AI

Feb 2025

- Built a Django-based web application to aid aphasia patients, automatically generating images from forgotten words and organizing them into intuitive categories for seamless patient-caregiver communication.
- Designed and implemented a caregiver-facing UI, ensuring smooth integration with an SQLite database and OpenAI APIs.
- Developed OpenAI features to expand single words into phrases, generate images, create item lists, and categorize terms.

BrickHack 10 Hackathon – SQL Education Tool – Best UX Award

Feb 2024

- Developed a Duolingo-style SQL learning tool that runs user inputs and uses AI for answer correction.
- Created REST API that communicated with a local database to test the user inputs on a real database.
- Designed and integrated Firebase NoSQL database for user info, curriculum content, and course data.
- Managed OpenAI integration to communicate errors in the user input.

SKILLS AND LANGUAGES

Python, Java, Go, C, C++, C#, Angular, React, SQL, NoSQL, HTML/CSS, Git, Linux/UNIX, Docker, OpenCV, Numpy, NPM