

# Noah Sweilem

Senior at Virginia Tech

📍 Blacksburg, VA · 📞 +1 (602) 321 8455 · @ nsweilem@vt.edu · 🌐 noah.sweilem.com · 🐦 @nununoisy · in Noah Sweilem

## Skills

- Programming — Proficient in JavaScript, TypeScript, Python, bash, Lua, C, and C++
- Full Stack Web Development — Proficient in Flask/WSGI, Node.js, Express, and React
- Linux — System administration and troubleshooting on general-purpose and embedded platforms
- DevOps — Proficient with Git, Docker, and K8s; familiarity with HashiCorp tools and Salesforce/Heroku
- Cybersecurity — Proficient in RV with Ghidra, networking with Wireshark/Scapy, and CTFs (playing and writing)

## Education

**Electrical and Computer Engineering Major** — Virginia Tech — Blacksburg, VA Aug 2019 - May 2023

**IB Diploma Recipient** — Barry Goldwater High School — Phoenix, AZ Aug 2015 - May 2019

## Research

**IoT Vulnerability Student Researcher** — Virginia Tech IT Security Lab Oct 2019 - Feb 2020

## Awards

**ECE 2514 Computational Engineering Best in Course** — VT Bradley Dept. of ECE Spring 2021

**ECE 2564 Embedded Systems Best in Course** — VT Bradley Dept. of ECE Fall 2021

## Work Experience

**Cyber Development Group Intern** — BlackHorse Solutions — Herndon, VA May 2022 - Aug 2022

- Reverse engineered the S7CommPlus protocol used by Siemens SIMATIC PLCs.
- Wrote a library in Python based on Scapy for interacting with an S7-1200 PLC.
- Successfully demoed a DoS attack that caused the PLC to cease operation and actively blocked restoration.

**Cloud Solutions Intern** — Jacobs Engineering — Dallas, TX Jul 2021 - Oct 2021

- Documented several applications hosted for internal use at Jacobs.
- Assisted in securing, troubleshooting, and maintaining Azure Kubernetes clusters.
- Configured New Relic for Kubernetes cluster monitoring.
- Developed automatic scraper to track migration of Jive intranet pages to new technologies.

**CTF Challenge Writer** — Virginia Cyber Range — Blacksburg, VA Mar 2021 - Present

- CTFs are competitions designed to teach and test cybersecurity knowledge through hands-on challenges.
- Writing challenges for CTFs that run in Virginia high schools and colleges.
- Creating CTF artefacts and live CTF containers using Docker.

**Summer Intern** — Kudu Dynamics, LLC. — Chantilly, VA May 2020 - Dec 2020

- Researched and classified vulnerabilities in IoT firmware as part of a DARPA HACCS task area group.
- Assisted with DevOps, in particular optimization of worker containers.
- Used GitLab CI/CD, the HashiCorp stack (Nomad, Vagrant, and Consul), and Docker.
- Maintained a full-stack web frontend for the project built on React/Node.js for use in demos.

**Student Assistant** — Virginia Tech Career/Professional Development — Blacksburg, VA Aug 2019 - Mar 2020

- Reception duties (answering phones, referring people based on their needs)
- Assisted in event setup for networking and professional development events