Emily Miller

emilymiller.xyz Emily Miller python151

Education

University of Edinburgh *Sept 2024 – May 2028*
BSc Computer Science and Mathematics

- Predicted First Class Honors
- **Coursework:** Functional Programming, Computational Logic, Introduction to Data Science in R
- **Student Societies:** SIGINT (Co-president of Cybersecurity society), Tardis (Committee in system administration society), CompSoc (TechSec in Scotland's largest computing society)

Experience

Vulnerability Research Intern *Basingstoke, UK*
Interrupt Labs *June 2025 - Aug 2025*

- Completed intensive in-house training led by senior security researchers.
- Conducted static and dynamic analysis and built internal tooling.
- Discovered several critical vulnerabilities in target device and developed proof-of-concept exploits.

Cloud Automation Intern *Hurst, TX*
Textron *Aug 2023 – Sept 2024*

- Developed enterprise firewall change request process to streamline firewall changes in ServiceNow. Integrated with 7 business units and 3 vendors, impacting over 350 tickets.
- Improved various operational processes through automation including assisting in developing our VM modification and decommission processes by implementing, testing, and pushing 17 change requests through to production.
- Integrated with the Azure Service Bus REST API to automate implementation of operational readiness reviews (ORRs).

Cybersecurity Engineering Intern *Hurst, TX*
Textron *Aug 2022 – Aug 2023*

- Developed Python programs for OSINT and attack surface discovery in response to incidents, improving threat intelligence.
- Worked with our Security Operations Center (SOC) to develop new endpoint and server security controls in response to Red Team exercises.
- Managed our Splunk SIEM instance, working directly with the Cyber Incident Response Team (CIRT) to enhance alerting mechanisms for improved incident detection.
- Applied Databricks and Python to develop an ETL pipeline between our Azure Data Lake and Splunk, optimizing data integration and analysis.

Public Research

NETGEAR Nighthawk Routers *Independent Bug Bounty*

- Ongoing research on the NETGEAR Nighthawk routers, with a proof-of-concept exploit in progress for responsible disclosure.

Technologies

Languages: C, Python, x86 Assembly, ARM Assembly, JavaScript, Haskell

Research tools: Binary Ninja, GDB, Frida, AFL++, pwntools