Tahamina Mostafa Chowdhury

Calgary, AB | github.com/tahaminachy43 | moonchow17@gmail.com | in/tahamina-chowdhury

Skills

Security: Threat detection, log analysis, anomaly hunting, vulnerability assessment, incident response lifecycle, SIEM concepts, penetration testing fundamentals, OSINT, access control and identity (OAuth), cryptography fundamentals, security controls, change management

Technical: Python, SQL, KQL fundamentals, Bash, JavaScript, Java, C++, REST APIs, Git, PostgreSQL, LLM integration, AI-assisted security automation

Systems & Cloud: Linux, SSH, POSIX APIs, Azure fundamentals, DigitalOcean, Vercel, React, Next.js, React Native (Expo)

Experience

Mechie *Waterloo, ON*
Software Engineering Intern Aug '24 – Apr '25

- Developed and deployed LLM-assisted detection pipelines to proactively identify irregular patterns and suspicious activity in large operational datasets, applying an AI-first approach to surface threats that would otherwise require significant manual investigation
- Conducted root cause analysis on escalated application security issues, investigating across front-end, API, and database layers to identify vulnerabilities, document findings, and implement targeted remediation
- Contributed to secure API architecture and access control design, applying least-privilege principles and authentication controls to reduce the attack surface across platform integrations
- Automated security-relevant workflows using Python scripts, reducing manual effort and improving detection speed across the platform's operational environment

Computer Science Undergraduate Society *University of Calgary*
President Dec '21 – Apr '24

- Organized and led security-focused technical workshops on SSH, Bash, and Git for 1000+ students, covering secure access practices, privilege escalation risks, and responsible system administration
- Reported regularly to the Dean of Computer Science, developing the ability to translate complex technical findings into clear, concise briefings for executive and non-technical audiences
- Managed multi-system infrastructure for Alberta's largest student hackathons, coordinating security logistics and resolving technical issues under deadline pressure across concurrent networks

Engineering for Kids *Calgary, AB*
Robotics Teacher May '22 – Present

- Delivered structured Python, Java, and JavaScript workshops to 5,000+ students, fostering curiosity-driven investigation and systematic problem-solving — core skills for threat analysis work
- Troubleshoot VEX IQ hardware and code issues in real time, explaining problems in plain language

Projects

Geospatial Disaster Relief Dashboard

- Built a Python-based log ingestion pipeline collecting and normalizing public emergency datasets from multiple sources, implementing anomaly detection logic to flag suspicious patterns and produce audit-ready findings
- Designed automated threat-informed workflows using scheduled Python scripts and LLM-assisted analysis, applying hypothesis-driven investigation techniques to surface irregular activity across ingested data
- Documented all findings, detection logic, and pipeline configurations in structured formats, producing clear technical outputs suitable for both operational teams and executive review

Shatter – Mobile Application (Expo / React Native)

- Implemented LinkedIn OAuth authentication and deep link handling with a Vercel-deployed API, managing secrets via environment variables to keep credentials out of source code

Education & Certifications

University of Calgary *Sept '21 – Apr '26*
Bachelor of Computer Science

- Relevant coursework: Operating Systems, Computer Networks, Systems Programming, Databases, Software Engineering
- **Certifications:** CompTIA Security+ (SY0-701), TryHackMe SEC0 (Pre-Security), TryHackMe SEC1 (Security 101)