Gabriel Adams

TN | 931-307-6140 | gradams1004@outlook.com | LinkedIn | GitHub | Website

ACCOLADES AND CERTIFICATIONS

CyberCorps: Scholarship for Service | U.S. Office of Personnel Management

Cookeville, TN

SY0-701 - CompTIA Security+

Valid Through: Apr. 13, 2028

(Renewed)
Issued: Apr. 13, 2025

Issued: Nov. 1, 2024

CS0-003 - CompTIA CySA+ Valid Through: Apr. 13, 2028

ISE - IoT Security Essentials

Issued: Oct. 24, 2025

Valid Through: Oct. 23, 2028

EXPERIENCE

Contract Penetration Tester

Sept. 2025 – Nov. 2025

Remote

ZOE International (Nonprofit)

- Conducted a cloud application penetration test under NDA to assess and strengthen security posture.
- Delivered findings and remediation recommendations to support safeguarding sensitive systems.

X163 Energy and Control Systems Security Intern

May 2025 – Aug. 2025

Oak Ridge National Laboratory

 $Oak\ Ridge,\ TN$

- Performed vulnerability research and assessments on embedded devices across two projects, producing reports and presentations.
- Developed custom Rust-based fuzzing frameworks targeting RTOS firmware to uncover flaws.
- Used Ghidra to reverse engineer firmware and identify authentication bypass vulnerabilities in industrial control systems.
- Authored technical documentation and presented findings to engineering teams and DOE mentors.

Satellite Security Lead Researcher

Aug. 2024 – Present

Cybersecurity, Education, Research, and Outreach Center (CEROC)

Cookeville, TN

- Built digital twin testbeds to analyze satellite communication security.
- Developed data analysis tools for transmission data patterns and timing anomalies.
- Researched side-channel countermeasures for satellite cryptographic modules.

Embedded Systems Security Analyst

May 2024 – Aug. 2024

Center for Energy Systems Research

Cookeville, TN

- Secured SCADA-to-device communication infrastructure and managed RTAC configurations.
- Developed portable, secure RTAC images compatible with HIL simulation systems.
- Helped complete a multi-million-dollar CESR energy systems research project.

IT Security Intern

May 2024 – Aug. 2024

Rebo Lighting and Electronics

Sparta, TN

- Implemented SIEM systems for network traffic monitoring and alert correlation.
- Conducted vulnerability assessments and managed mitigation plans.
- Supported ISO 27001 certification through policy creation, tool deployment, and staff training.

AI Drone Security Researcher

July 2023 – May 2024

Cybersecurity, Education, Research, and Outreach Center (CEROC)

Cookeville, TN

• Created a multimodal AI model to detect false-data injection, DoS, and MITM attacks from flight logs.

Embedded Systems Engineer

Jan. 2023 - May 2024

Center for Energy Systems Research

Cookeville, TN

- Developed embedded C software for wireless energy transfer systems.
- Collaborated on research leading to a university publication credit as an engineer.

EDUCATION

Tennessee Technological University

B.S. in Computer Science, Cybersecurity Concentration

Tennessee Technological University

M.S. in Information Assurance and Cybersecurity

Cookeville, TN Aug. 2022 - Dec. 2025 Cookeville, TN Jan. 2026 - Dec. 2026

LEADERSHIP AND EXTRACURRICULAR

Defensive Cybersecurity Interest Group Lead | Jan. 2024 - Present

CyberEagles Vice-President | Aug. 2024 - Present

Tennessee Tech

Tennessee Tech

Technical Skills

Programming & Development: C, C++, Python, Rust, Embedded C, x86/ARM Assembly, Bash/Shell. Embedded & ICS: Firmware reverse engineering, side-channel analysis, protocol fuzzing, Power System Protection. Security Operations: SIEM, Threat Hunting, Vulnerability Assessment, Incident Response, Forensics, Log Analysis. Networking & Virtualization: Firewalls, IDS/IPS, DNS, Linux, Windows, Proxmox, Docker, Cloud Security.

Compliance & Cryptography: PKI, IAM, Risk Management, ISO 27001, SSDLC, Encryption.

IoT Security: Wireless Protocol Security, OTA Update Security, Hardware Root of Trust, penetration testing.

Competitions

MITRE Embedded Capture The Flag (eCTF) | Aug. 2025 - May 2026

Boston, MA

• Served as technical lead for my team during both the development and attack phases of the competition.

Cybersecurity Collegiate Defensive Competition (CCDC) | Jan. 2025 - May 2025

• Led the university's first-ever CCDC team to a 1st-place regional finish as captain.

Cyber Resiliency and Measurement Challenge (CRAM) | Aug. 2024 - Oct. 2024

Dahlgren, VA

• Led a team of five in a NAVSEA competition to apply LLMs, ML, and data science for system resilience analysis.

Hobbies

IoT Pentesting | Jan. 2022 - Present

- * Analyze and reverse engineer firmware on consumer IoT devices for known CVEs.
- * Developed open-source tools to automate firmware analysis and vulnerability discovery.