

Zachary Ryan

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EDUCATION

Robert Morris University
Bachelor of Science in Cybersecurity
Dean's List Recipient

Pittsburgh, PA
August 2024- December 2026

SKILLS

Languages: Python | Java | Bash | PowerShell | HTML | CSS | SQL

Technical: Linux | Operating Systems | Digital Forensics | TCP/IP | Networking | Computer Hardware | Docker | Git/GitHub

Conceptual: SIEM | Wireshark | tcpdump | Ethical Hacking | Virtualization | Firewalls | SSL/TLS | Nmap | NIST RMF

Core Competencies: Leadership | Attention to Detail | Verbal Communication | Critical Thinking | Problem-Solving

LICENSES AND CERTIFICATIONS

- Secret Clearance - DOD Issued
- Google Cybersecurity Specialization Certificate [\[Certificate Link\]](#)

EXPERIENCE

United States Navy | Machinist Mate - Nuclear Reactor Department | Norfolk, VA July 2020 - September 2023

- Functioned under high-pressure conditions while maintaining strict attention to detail and compliance with safety standards
- Handled incident response, system monitoring, diagnostics, and secondary nuclear reactor equipment troubleshooting
- Maintained secure reactor operations by enforcing layered access controls, reviewing system status logs, and detecting abnormal system behavior, ensuring operational continuity, technical resilience, and safety in mission-critical environments

Sewickley BMW/Audi/Porsche Dealership | Car Detailer and Photographer | Sewickley, PA September 2023 - August 2024

- Leveraged advanced auto detailing techniques to represent Audi, BMW, and Porsche brands at the highest level
- Collaborated with sales and service teams to maintain consistent alignment with customer expectations and brand values
- Detailed luxury vehicles to showroom standards while highlighting key design and performance features

PROJECTS

AI Powered Phishing Email Detection & Safe Rewrite System | [\[Github\]](#)

- Built a full-stack phishing detection platform using FastAPI and React to classify emails as SAFE, SUSPICIOUS, or PHISHING
- Implemented explainable risk scoring logic using keyword analysis, links, and SPF/DKIM/DMARC email authentication headers
- Developed a safe email rewrite engine that removes malicious content and highlights changes using HTML diff visualization

Docker-Based Segmented Network Environment | [\[Github\]](#)

- Architected a segmented multi-container environment simulating frontend, API, database, and management networks
- Implemented firewall rules using iptables to enforce network access controls between segments
- Built an attacker container to demonstrate real-world lateral movement and firewall bypass attempts

AI Powered Network Anomaly Lab | [\[Github\]](#)

- Built a full-stack SOC-style network anomaly detection platform using FastAPI, Docker, and React to analyze traffic patterns
- Implemented unsupervised machine learning (Isolation Forest) to score and flag anomalous real-time network traffic
- Developed a traffic simulation engine generating traffic flows, attacker behavior, and port scan anomalies

Password Cracker | [\[Github\]](#)

- Built a Java Swing application demonstrating brute-force password cracking concepts using SHA-256 hashing logic
- Implemented background execution with SwingWorker to display live cracking speed, progress, and runtime metrics
- Developed a secure password generation feature using SecureRandom with optional export to text files

Port Scanner Web Application | [\[Github\]](#)

- Developed a web-based port scanning application using Python and Flask to identify open TCP ports on target hosts
- Implemented concurrent scanning with ThreadPoolExecutor to improve performance with a time-limited scan window
- Designed input validation and error handling to display scan results through a user-friendly web interface safely

CO-CURRICULARS AND ACHIEVEMENTS

- Member of Top Secret Colonials (TSC) - Campus Cybersecurity Club at Robert Morris University (RMU)
- Capture the Flag (CTF) team member at RMU
- Honor Society Nomination - Issued by the National Society of Leadership and Success [\[Link\]](#)