

# 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

### Community College of Beaver County

Cybersecurity  
President's List Recipient

Monaca, PA

Jan 2024 - May 2024

## 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

- Operated and maintained nuclear propulsion systems, ensuring safe, efficient, and reliable performance at sea
- Functioned under high-pressure conditions while maintaining strict attention to detail and compliance with safety standards
- Conducted scheduled and emergency repairs on pumps, turbines, valves, and other mechanical systems
- Handled incident response, system monitoring, diagnostics, and secondary nuclear reactor equipment troubleshooting
- Demonstrated teamwork and communication, collaborating with multiple teams to maintain operational standards
- 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

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

- Developed a web-based TCP port scanner using Flask and Python socket library, allowing users to identify open ports
- Used ThreadPoolExecutor for efficient multi-threaded scanning across port ranges
- Followed ethical guidelines and legal standards for responsible port scanning
- Designed a clean HTML/CSS front-end with Jinja2 for displaying results
- Enforced a 5-second timeout mechanism to restrict scan duration and mitigate system strain and accidental abuse

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

- Designed a segmented multi-container environment simulating frontend, API, database, and management networks
- Implemented firewall rules using iptables to enforce network access controls between segments
- Created a lightweight monitoring dashboard to visualize network events and security rule effectiveness
- Built an attacker container to demonstrate real-world lateral movement and firewall bypass attempts
- Hardened individual containers by restricting privileges and minimizing exposed services

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

- Built a Java Swing GUI tool simulating password brute-force attacks and secure password generation
- Implemented SHA-256 hashing and recursive cracking logic with live progress updates
- Added adjustable parameters like max length and charset for cracking flexibility
- Incorporated an option to export generated passwords to a text file for offline use or system setup

## 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 [\[Link\]](#)