

Alexander T. Karapetkov

Email: alexander.karapetkov@gmail.com | LinkedIn: <https://www.linkedin.com/in/alex-karapetkov>

Github: <https://github.com/Alex-Karapetkov> | Portfolio: <https://alex-karapetkov.github.io/>

Detail-oriented and proactive cybersecurity professional with hands-on experience in vulnerability assessment, incident response, and system security hardening. Proficient in Windows, Linux, and MacOS environments, with exposure to **cloud endpoint management** tools such as **Microsoft Entra ID, Intune, and Adobe Cloud**. Skilled in **PowerShell, Power Automate, Power BI, and SQL** for automating processes and generating security reports. Familiar with **SIEM tools, patch management, security compliance (NIST, CIS, DISA STIGs), and risk assessment** to enhance organizational security posture. Adept at analyzing network traffic, conducting security monitoring, and responding to threats with a keen eye for detail. Passionate about leveraging technical expertise and analytical skills to strengthen enterprise security and drive continuous improvement in cybersecurity operations.

Education

Computer Science (B.S.) **May 2024**
James Madison University Harrisonburg, VA

Technical Certifications

CompTIA Security+ CE Certified



December 2024

CompTIA Advanced Security Practitioner

Expected March 2025

Skills

- **Cybersecurity:** Familiarity with and working knowledge of Threat detection, incident response, vulnerability assessment, security monitoring, intrusion detection, risk assessment, digital forensics, malware analysis, security incident triage, threat hunting, SIEM tools, network security, access control, security frameworks (NIST, CIS, ISO 27001, DISA STIGs), ethical hacking, penetration testing, patch management, business continuity planning, compliance auditing, security controls evaluation
- **Programming/Software:** Python, PowerShell, Bash, scripting automation, log parsing, Wireshark, SQL, Splunk, version control (Git/GitHub), cloud security fundamentals, Power Automate, Power BI
- **Soft skills:** Excellent written and verbal communication, critical thinking, analytical problem-solving, attention to detail, collaboration, teamwork, adaptability, customer service, time management, documentation, technical training, initiative, organization, ability to work independently, multitasking
- **Technical:** Strong understanding of Linux administration, Windows administration, MacOS administration, VMware, cloud platforms (AWS, Azure), endpoint security, log and event analysis (Sysmon, Windows Event Logs), system administration, directory services, Microsoft Entra ID, Microsoft Intune, Adobe Cloud, Beyond Trust, network protocols, cybersecurity compliance, security documentation, virtualization, security configurations (GPO, STIGs), operational security, infrastructure monitoring
- **Foreign Languages:** Bilingual Bulgarian, Intermediate German

Work Experience

- Site Manager** at JMU Recreation August 2022 - May 2024
- Ensured safety, compliance with policies, and efficient programming of Intramural Sports, including conducting officials’ training sessions, participants’ pregame meetings, and performance evaluations
 - Employed first responder principles as needed (CPR, AED, Bloodborne)
- Help Desk Technician** at JMU April 2023 - May 2024
- Provided technical support to users by diagnosing and resolving problems related to computer hardware, software, and network access
 - Responded to technical support inquiries via calls, emails, or chat messages, assisting users with computer-related concerns
 - Walked users through step-by-step instructions to address technical difficulties, including password resets, application troubleshooting, and basic hardware setup
-

Projects

- Traveling Salesman Problem** Python May 2024
- Applied algorithmic techniques to solve NP-complete problems with Python, focusing on efficiency and performance analysis relevant to system optimization and threat mitigation
 - Analyzed algorithm runtime to evaluate performance and identify potential vulnerabilities in computational processes
 - Developed skills in technical communication, presenting findings and strategies with a focus on security and optimization metrics
- 8-bit RISC-V ALU** Verilog April 2024
- Designed and implemented an 8-bit RISC-V Arithmetic Logic Unit (ALU) in Verilog, optimizing for efficiency and system integrity
 - Developed modular designs with testbenches, ensuring thorough testing and validation to identify vulnerabilities in system components
 - Enhanced skills in hardware description languages, digital circuit design, and debugging, with a focus on system security and reliability
- Command Line Shell** C November 2023
- Developed a secure command-line shell in C, with features like process control, environment variable management, and secure input/output handling to mitigate vulnerabilities
 - Applied system-level programming concepts to enhance security, focusing on process isolation and privilege boundaries
 - Implemented best practices in input validation and environmental variable management to prevent exploitation
-

Leadership and Involvement

- Member of JMU Delta Phi Epsilon Professional Foreign Service Society September 2021 - May 2024
- Secretary for JMU Asian Student Union December 2019 - May 2021
- Virginia Governor’s German Language Academy June 2018 - July 2018