

# JOSEPH BLACK

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## CERTIFICATIONS/AFFILIATIONS

- Member (Student) – ISACA (Information Systems Audit and Control Association)
- Member – Upsilon Pi Epsilon – International Honor Society for Computing and Information Disciplines
- Member – SALUTE Veterans National Honor Society (Gold Tier)
- CompTIA (Computing Technology Industry Association) –
  - IT Fundamentals: FCO-U61
  - Security+: SY0-601
  - A+: 220-1101 & 220-1102
  - CySA+: CS0-002
  - Network+: N10-008
  - PenTest+: PT0-002

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## SUMMARY OF SKILLS & QUALIFICATIONS

- Federal Law Enforcement Program Management
- Penetration Testing and Vulnerability Analysis
- Malware Analysis and Reverse Engineering
- Java, Python, C, and Assembly Experience
- Hybrid-Cloud and Segmented Network Architecture
- SIEM and Packet-Level Investigation
- Digital Forensics and Incident Response
- Nmap, Metasploit, Wireshark, Nessus, Ghidra, etc.

## EDUCATION

### Marymount University, Arlington, VA (pending admission)

- Doctor of Science (DSc) Cybersecurity Anticipated Graduation - May 2029

### University of Maryland Global Campus, Adelphi, MD

- Master of Science (MS) - Cybersecurity Technology, 4.0 GPA May 2026
- Bachelor of Science (BS) - Cybersecurity Technology w/ Computer Networking Certificate, 3.917 GPA August 2025

### Marshall University, Huntington, WV

- Master of Arts in Teaching (MAT) - Social Studies 5-Adult December 2012
- Regents Bachelor of Arts (RBA) - Minor: International Affairs and History December 2010

## SELECTED ACADEMIC AND APPLIED CYBERSECURITY PROJECTS

### Threat Analysis and Critical Infrastructure Defense Strategy

*(Undergraduate Capstone - Collaborative Project, Team Lead)*

Analyzed APT32, a Vietnamese state-sponsored threat actor, to assess attack viability against a healthcare organization adopting hybrid cloud architecture; produced executive-level defensive strategy aligned with MITRE ATT&CK and NIST frameworks.

- Mapped APT32 tactics including phishing campaigns, custom malware deployment, and infrastructure obfuscation to simulate realistic attack vectors against the target environment
- Designed layered defensive architecture integrating EDR, SIEM (Azure Sentinel), and policy-based segmentation tailored to a Microsoft-centric hybrid environment
- Produced executive summary translating threat findings into organizational risk, consequence mechanisms, and resource allocation recommendations

### Penetration Test and Remediation Analysis

Executed an end-to-end penetration test against a simulated enterprise environment; produced technical and executive-level findings with remediation roadmap.

- Discovered 32 open ports via Nmap, Zenmap, and OpenVAS; identified legacy service versions as indicators of systemic patch management failure across the environment
- Exploited unpatched Samba SMB vulnerability via Metasploit to obtain root access; extracted credentials through shadow file access and documented lateral movement pathways
- Delivered prioritized remediation roadmap and segmentation strategy framed for both technical staff and executive stakeholders

### Security Monitoring and Indicator of Compromise Investigation

Designed and executed host and network monitoring workflows to detect, triage, and document active compromise across multi-host lab environments, applying NIST CSF and ISO 27001 investigative standards.

- Classified three malicious executables (a trojan reverse shell, Mimikatz, SharpHound) via VirusTotal; confirmed active command-and-control via reverse shell callback and Windows Defender Event ID 1116

- Built SIEM correlation logic to surface threat signals; mapped privilege escalation pathways to incident reporting documentation
  - Identified detection weaknesses for insider threat and lateral movement scenarios in segmented enterprise environments
- Enterprise Cloud Migration Strategy and Hybrid Infrastructure Security Modeling**  
 Developed executive-facing analysis evaluating cloud service provider adoption for an organization with legacy on-premises infrastructure and regulatory data handling requirements; validated recommended architecture through a proof-of-concept implementation.
- Compared AWS, Azure, and GCP across service models, security controls, and regulatory fit; recommended AWS IaaS hybrid deployment for the organization
  - Constructed AWS VPC with segmented subnets, NAT gateway, and security group controls as proof-of-concept validation of the recommended architecture
  - Produced executive summary translating architecture decisions into migration risk, cost modeling, and organizational impact for non-technical stakeholders

## WORK EXPERIENCE

Federal Bureau of Prisons – (MSTC) Management and Specialty Training Center – Denver, CO

**Instructional Systems Specialist – GS-1750-12** August 2023 – Present

- Designed and delivered web-based training programs and Instructor Skills courses for Bureau personnel
- Assembled custom hardware editing workstations to support instructional media production operations
- Provided secondary law enforcement coverage as assigned

Federal Bureau of Prisons – Correctional Institution (Southeast Region)

**Employee Development Manager – GS-0201-12** November 2020 – August 2023

- Analyzed learning management system (LMS) data and automated compliance reporting to support executive decision-making on mandatory training requirements
- Served as primary advisor on agency and legal training requirements; chaired training committee aligning strategy with operational priorities
- Developed and evaluated Bureau instructors; administered new hire orientation (ICT Phase I) for all incoming staff
- Managed training budget, forecasting resource and equipment needs

Federal Bureau of Prisons – Correctional Institution (Mid-Atlantic Region)

**Teacher – GS-1710-09/11** July 2014 – November 2020

- Managed education records, analyzed performance data, and oversaw budgets and operational planning for assigned program areas
- Provided technical support for instructional systems and hardware; served as Acting Supervisor of Education
- Developed interagency agreements supporting educational partnerships and directed annual graduation ceremonies
- Developed and delivered clerk and tutor training in support of literacy program operations

## COLLATERAL DUTIES

- Computer Services Alternate / Intranet Administrator
- Selective Placement Program Manager (Schedule A)
- Institution Duty Officer / Historian
- Planning Section Member (NIMS/ICS Emergencies)
- Staff Mentor and Mentor Instructor
- Armed BPT Escort Officer

## MILITARY

United States Army – **Combat Medic – 91W/68W – Health Care Specialist**

## HONORS & ACTIVITIES

- President's List, UMGC Graduate College (4.0 GPA)
- UMGC B.S. magna cum laude (GPA 3.917)
- UMGC Computing Club, Student Veterans of America, and One2One Mentor
- FLETC Honor Graduate, Bureau of Prisons (2014)
- 8 Agency Performance Awards (5-year period)
- Achieved department's highest inmate graduation rate, 223% above the remaining department average per quarterly reports