

Kayvon Karimi

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Professional Statement

Cybersecurity professional (MS Cybersecurity Engineering, Dec 2025) transitioning from full-stack development to Application Security with 6+ years of secure coding experience. Completed 320-hour intensive pre-apprenticeship gaining hands-on expertise in penetration testing, vulnerability assessment, and OWASP Top 10 controls. Built 100+ production websites with security-first architecture and developed a full-stack security analytics platform. Focused on securing web applications, APIs, and cloud infrastructure while bridging development and security teams.

Skills

Technical Skills: Network & Web Application Exploitation • Penetration Testing • Vulnerability Assessment • Server Hardening • Incident Response • Packet Analysis • Traffic Decryption • Bash/Python Scripting • Linux/Windows Administration • API Security & Rate Limiting • CORS Configuration • Session Management & Fingerprinting • Threat Modeling • System Forensics

Security Tools & Technologies: Burp Suite • OWASP ZAP • Nmap • Metasploit • SQLmap • FFUF • Gobuster • Nikto • Wireshark • Nessus • OpenVAS • Wazuh • Splunk • Snort • Security Onion • ELK Stack • Hashcat • John the Ripper • Aircrack-ng • Airmon-ng

Web Development & Application Security: FastAPI • React • Flask • SQLAlchemy • REST APIs • JavaScript • HTML/CSS • PHP • MySQL • PostgreSQL • Vite • Axios • OpenSSL • Apache2 HTTPS • PKI/TLS/SSL • X.509 • Certificate Authority Configuration • WordPress Hardening • Input Sanitization • Parameterized Queries • Django • JSON Web Tokens • Browser Dev Tools

Infrastructure & Cloud: AWS (EC2/S3/IAM/Security Groups) • Azure • Docker • Kubernetes • Active Directory • Windows Server • VirtualBox • Pi-hole • WireGuard • Railway • Vercel • iptables • Terraform • Nginx Reverse Proxy

Frameworks, Standards & Compliance: OWASP Top 10 • NIST 800-53 • MITRE ATT&CK • CIS Benchmarks • ISO 27001 • SOC 2 • CVE/CVSS • DISA STIGs • Zero Trust Architecture • CIS Controls v8 • NIST SP 800-260

Education

University of San Diego Dec 2025
San Diego, CA
Master of Science, Cybersecurity Engineering (GPA: 4.00)

• **Achievements:** Advanced research and applied engineering

Texas A&M University May 2012
College Station, TX
Bachelor of Arts, Psychology, Minor in Business Administration (GPA: 3.4)

• **Achievements:** Men's D1 tennis team

Certifications & Training

- **CompTIA Security+:** Expected December 2025
- **OverTheWire Natas Wargames:** July 2025
 - * Web application security challenges covering SQL injection, XSS, authentication bypass, and command injection.
- **Cyber Proud Cybersecurity Pre-Apprenticeship (320 hours):** May 2025
 - * Completed a 16-week intensive training in security fundamentals, cryptography, cloud security, and web security.
 - * Developed technical proficiency in Windows/Linux administration, Active Directory, PowerShell, AWS, Docker, and Kubernetes.
 - * Gained hands-on experience with penetration testing, vulnerability assessment, SIEM deployment, IDS/IPS, and network security.
- **TryHackMe:** February 2025 - Present
 - * Hands-on cybersecurity labs covering network security, penetration testing, vulnerability assessment, and incident response.
- **Harvard: VPAL Cybersecurity - Managing Risk in the Information Age:** August 2023
- **Google Foundations of Cybersecurity:** July 2023

Cyber Security Projects

GhostTrack – Security Analytics Platform | Capstone * | [GitHub](#) Oct 2025 – Current

Independent Project

- Developed full-stack security analytics platform using React, FastAPI, PostgreSQL with behavioral bot detection, threat intelligence, and real-time session tracking.

- Built RESTful API with SQLAlchemy ORM for event ingestion, analytics aggregation, device fingerprinting, and deterministic visitor identification.

Security Hardening & Vulnerability Remediation | [YouTube](#)

Aug 2025 - Nov 2025

Design World

- Remediated 35 critical vulnerabilities including EternalBlue/SMBv1 across 8-host environment; disabled RDP, hardened Active Directory, modernized SSL/TLS, enabled host firewalls; validated via Nessus achieving 0 exploitable findings.
- Produced comprehensive security report with NIST/CIS-aligned remediation procedures, before/after metrics, and Zero Trust architecture recommendations

Internal Penetration Test | Active Directory & Network Exploitation | [Report](#)

Sep 2025 - Oct 2025

Design World

- Exploited SMBv1 (MS17-010/EternalBlue) for RCE and lateral movement across segmented enterprise hosts.
- Identified weak SSL/TLS ciphers (SWEET32, RC4) and recommended cryptographic hardening for Active Directory environment.

Web Application Vulnerability Assessment | eCommerce Platform | [Report](#)

Aug 2025 - Sep 2025

Court Crate

- Performed reconnaissance and enumeration using Nmap (SYN stealth scans, service version detection) and Tenable Nessus, identifying 26 vulnerabilities across 2 severity tiers (0 critical, 2 medium).
- Mapped findings to OWASP Top 10 with CVSS risk ratings and delivered executive/developer remediation reports.

VPN Client Monitoring with Wazuh SIEM | AWS Cloud Deployment | [Report](#)

June 2025 - Jul 2025

University of San Diego

- Provisioned and configured AWS EC2 instance to deploy a secure, cloud-based VPN infrastructure using Pi-hole for DNS-level ad/tracker blocking and PiVPN (WireGuard) for encrypted remote access.
- Integrated Wazuh SIEM/XDR to enable centralized log aggregation, correlation rules, and alerting mechanisms for VPN client activity.

Wireless Traffic Capture & WPA2 Cracking | Capstone Project | [YouTube](#)

Feb 2025 - Apr 2025

Cyber Proud

- Captured and decrypted 5,000+ WPA2-encrypted 802.11 frames using monitor mode and aircrack-ng to crack weak Wifi passwords.
- Analyzed over 5,000 decrypted traffic in Wireshark, exposing DNS, TLS, ARP, SSDP, LLMNR metadata and endpoint behavior.

Forensic Investigation | System Artifact Analysis with Autopsy | [Report](#)

Nov 2024 - Dec 2024

Independent Project

- Processed and parsed 300+ Windows registry artifacts (NTUSER.DAT, OpenSaveMRU, MUICache, UserAssist) to reconstruct user activity timelines and detect anomalous behavior.
- Employed Autopsy, RegRipper, and manual registry inspection to perform layered forensic analysis, event correlation, and artifact extraction.

Professional Experience

Court Crate | Security Project Manager

Oct 2019 – Present

Remote

- Built and managed a secure e-commerce platform with WordPress hardening, user authentication, HTTPS/TLS, and uptime SLAs.
- Implemented web application security controls, including SSL/TLS enforcement, plugin audits, and regular vulnerability patching to protect user data and maintain platform resilience.

Broadstone Sports Club | Operations & Technology Specialist (Part-Time)

May 2023 – Present

Folsom, CA

- Manage client database, scheduling systems, and payment processing with data privacy and security best practices.
- Develop training programs and operational processes, ensuring compliance with organizational policies and procedures.

Tri-Force Marketing | Web Developer

Feb 2015 - May 2021

Dallas, TX

- Developed 100+ full-stack websites (HTML5, CSS3, JavaScript, PHP, MySQL) with secure form handling, authentication, and server-side validation.
- Implemented input sanitization and parameterized queries to prevent XSS, CSRF, and SQL injection per OWASP Top 10.
- Configured SSL/TLS, access controls, and log analysis to strengthen deployment security and operational monitoring.