

Kayvon Karimi

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Professional Statement

Cybersecurity graduate student (Dec 2025) transitioning from full-stack web development to Application Security with 4+ years of secure coding experience and hands-on expertise in penetration testing, vulnerability assessment, and API security. Completing Master's in Cybersecurity Engineering and Cyber Security Pre-Apprenticeship program with practical projects in web exploitation, SIEM deployment, and threat detection. Built 100+ production websites with OWASP Top 10 security controls and developed a full-stack security analytics platform. Passionate about securing web applications, APIs, and cloud infrastructure while bridging the gap between 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

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

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

Frameworks Standards & Compliance: OWASP Top 10 • NIST 800-53 • MITRE ATT&CK • CIS Benchmarks • ISO 27001 • SOC 2 • CVE/CVSS • DISA STIGs

Education

University of San Diego <i>Master of Science, Cybersecurity Engineering</i> (GPA: 4.00)	Dec 2025
• Achievements: Advanced research and applied engineering	<i>San Diego, CA</i>
Texas A&M University <i>Bachelor of Arts, Psychology, Minor in Business Administration</i> (GPA: 3.4)	May 2012
• Achievements: Men's D1 tennis team	<i>College Station, TX</i>

Certifications & Training

- **Cyber Proud: Cybersecurity Pre-Apprenticeship Program:** May 2025
 - *Completed cybersecurity training in computer fundamentals, cryptography, cloud security, and vulnerability management.
 - *Gained hands-on experience with Windows/Linux, Active Directory, PowerShell, AWS, Docker, and Kubernetes.
 - *Developed practical skills in penetration testing, vulnerability assessments, network exploitation, SIEM tools, and IDS/IPS.
 - *Proficient in securing sensitive data, configuring proxy servers, and managing firewalls and VPNs.
- **CompTIA Security+:** December 2025
- **Google: Foundations of Cybersecurity:** August 2023
- **Harvard: VPAL Cybersecurity - Managing Risk in the Information Age:** July 2023

Cyber Security Projects

GhostTrack – Security Analytics Platform | Capstone * | [GitHub](#)
Independent Project

Oct 2025 – Nov 2025

- Developed a full-stack web analytics platform using React, FastAPI, and PostgreSQL with real-time bot detection, threat analysis, and visitor tracking across 5000+ events.

- Built RESTful API with FastAPI and SQLAlchemy ORM for event tracking, analytics aggregation, and session management with deterministic visitor numbering.

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.

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

Jul 2024 - Aug 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](#)

Jun 2024 - 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, airmon-ng, and aircrack-ng to crack weak passwords.
- Analyzed decrypted traffic in Wireshark, exposing DNS, TLS, ARP, SSDP, LLMNR metadata and endpoint behavior.

Kali Linux GRUB Menu Login Bypass | Cracking a Kali Linux User | [YouTube](#)

Jan 2025 - Feb 2025

Independent Project

- Demonstrated local privilege escalation via bypassing GRUB authentication and modifying kernel boot to gain root shell access.
- Analyzed the boot process, GRUB configuration, and Linux runlevels to enable unauthorized access without credentials.

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.

Work Experience

Court Crate | Project Manager - (Present)

Oct 2019 - Present

- Built and managed a secure e-commerce platform with WordPress hardening, user authentication, HTTPS/TLS, and uptime SLAs.
- Implemented robust 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 | Tennis Professional - (Part-Time)

May 2023 - Present

- Mentored and coached players across skill levels, developing training plans and translating concepts into actionable improvements.

Golden Gate Realty | Real Estate Agent

Jan 2020 - Nov 2022

- Managed client relationships and high-value transactions requiring analytical thinking and clear communication.

Tri-Force Marketing | Web Developer

Feb 2015 - May 2021

- 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.