

Youssef Sadek

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PROFESSIONAL SUMMARY

Information Technology student focused on Cyber Security. Hands on experience in penetration testing, IDS/IPS, vulnerability scanning, and enterprise security monitoring. Skilled in threat detection, scripting, and building scalable security platforms.

EDUCATION

Bachelor of Science in Information Technology

May 2022 – Aug 2026

New Jersey Institute of Technology

Newark, NJ

Relevant Coursework: Network Security, Cryptography, Operating Systems, Ethical Hacking, Linux, System Administration, System Security

TECHNICAL SKILLS

- Languages: Python, Bash, JavaScript, C
- Tools: Kali Linux, Security Onion, Nessus, Nmap, VMware, SQL, Prisma, OpenVAS, Masscan, Tailscale, PagerDuty
- Concepts: Network Security, Vulnerability Assessment, Ethical Hacking, Distributed Systems

CERTIFICATIONS

Udemy: Complete Python Programming Certificate – Mar 2024

EXPERIENCE

Cybersecurity & Technical Operations Intern

Jun 2025 - Sep 2025

David Zwirner

New York, NY

- Engineered a global vulnerability monitoring system with backend APIs, frontend features, and automated scan workflows
- Deployed and maintained Raspberry Pi scanning agents (OpenVAS, Nmap, Masscan) for enterprise scale network testing
- Conducted recurring vulnerability scans on corporate networks, identifying bottlenecks and refining configurations
- Collaborated via GitHub pull requests, practicing professional code review, version control, and Agile teamwork
- Applied enterprise best practices in secure deployment, error handling, and system monitoring to strengthen operational resilience

PROJECTS

Enterprise Global Network Scanning & Vulnerability Monitoring System

Jun 2025 - Sep 2025

David Zwirner

New York, NY

Technologies: NestJS · Node.js · TypeScript · Prisma · SQLite · Masscan · OpenVAS (GVM) · Python · Cron Scheduling · React · PagerDuty · Vulnerability Management · Authentication & Security (Passport.js)

- Engineered a full stack vulnerability scanning platform with NestJS, Node.js, Prisma, SQLite, and React, enabling automated host discovery, assessment, and reporting
- Orchestrated scanning pipeline integrating Masscan + OpenVAS (GVM) via Python↔Node interop, scaling to 50,000+ hosts with 30% faster throughput and lower failure rates
- Implemented cron based scheduling system to automate recurring vulnerability scans, improving reliability and cutting manual effort by >80%
- Integrated PagerDuty alerts with retry/backoff for reliable escalation of CVSS 8.9+ vulnerabilities
- Secured access with Passport based session authentication and delivered a lightweight React UI for scan scheduling and results review.
- Developed an automated setup script to configure network scanning agents, streamlining installation of dependencies (Node.js, GVM, Prisma, npm) and cutting manual setup by 2+ hours per deployment.

Cybersecurity Virtual Lab

Mar 2025 - May 2025

- Deployed a 3 VM lab environment (Kali Linux, Security Onion, BasicPentesting1) using VMware for penetration testing practice
- Detected and exploited 36 vulnerabilities, including a ProFTPD backdoor, leveraging Metasploit for exploitation workflows
- Enhanced network defense by validating intrusion alerts in SGUIL and analyzing packet level threat data

Vulnerability Scanner Tool

Jun 2024 - Aug 2024

- Built a multithreaded Python scanner detecting 20+ common web vulnerabilities, improving coverage and automation
- Optimized performance by 20% with randomized headers and User Agent rotation to evade detection

Job Scraper Web App

Jun 2024 - Aug 2024

- Built a Python based scraper (Beautiful Soup, Requests) to extract 500+ LinkedIn job postings daily