Youssef Sadek

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# PROFESSIONAL SUMMARY

Computer Science 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 Computer Science** May 2022 - May 2026

**New Jersey Institute of Technology** Newark, NJ

Relevant Coursework: Network Security, Cryptography, Operating Systems, Computer Networks, Intensive Programming in Linux

# TECHNICAL SKILLS

* Languages: Python, JavaScript, C++, Java
* 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**