ashraf sobhi

Cybersecurity expert

Portfolio • GitHub • Dev.to

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Cybersecurity Engineer & AI Specialist with a strong foundation in offensive security (OSCP, eWPTX) and secure system architecture. Founder of CybHack, with proven experience in building high-performance platforms and securing enterprise environments at Microsoft Egypt and Saudi Vision 2030. Adept at merging AI with cybersecurity to automate threat detection, optimizing system performance by 40% and achieving 95%+ accuracy in vulnerability reporting.

Education

Bachelor of Science in Artificial Intelligence at Misr University for Science and Technology (MUST), 6th of October City, Giza – Egypt

September 2019 - October 2023

Studied Artificial Intelligence with a strong focus on machine learning, cybersecurity fundamentals, data structures, and robotics programming. Gained hands-on experience through practical projects, including developing an intelligent assistant using C, Assembly, and Python, and participating in applied research and security-driven system design.

Experience

Founder & Cybersecurity Engineer at CybHack, Sheikh Zayed, Giza – Egypt

Present • ↗

- Built and secured high-performance platforms handling 500+ concurrent users without downtime.
- Increased system efficiency by up to 40% through architecture optimization and code refactoring.
- Achieved zero successful intrusion attempts after implementing advanced security layers.
- Delivered penetration tests with 95%+ accuracy in vulnerability reporting.
- Managed full project lifecycles for clients, from planning to deployment and maintenance.
- Scaled company operations and established a roadmap for public listing in 2030.

Cybersecurity Specialist (Contract) at Microsoft Egypt (Collaboration), Smart Village, Giza – Egypt

January 2021 - February 2022 • ↗

- Improved system authentication workflows, reducing unauthorized access attempts significantly.
- Strengthened internal infrastructure according to enterprise-grade security standards.
- Assisted in designing scalable architectures supporting thousands of daily users.
- Contributed to vulnerability assessments and enhanced incident-response readiness.

Internships

Cybersecurity Intern at Microsoft Egypt (Training Collaboration), Smart Village, Giza – Egypt

February 2020 - May 2020 • ↗

- Assisted in vulnerability scanning and security assessment tasks across internal platforms.
- Supported the enhancement of authentication and access-control workflows.
- Participated in monitoring system logs and identifying early indicators of security risks.
- Gained hands-on experience with enterprise-level cybersecurity tools and defense strategies.
- Contributed to improving system stability and reducing misconfigurations in development environments.

AI & Machine Learning Intern at Saudi Vision 2030 – Tech & Innovation Program (Remote Internship), Riyadh – Saudi Arabia

February 2021 - December 2021 • ↗

- Worked on AI-driven automation concepts supporting digital transformation objectives.
- Assisted in building early prototypes of machine learning models for data classification and pattern detection.
- Contributed to performance tuning and improving model accuracy through dataset refinement.
- Supported the engineering team in analyzing system behavior and evaluating AI integration points.
- Gained practical experience in large-scale national tech initiatives and strategic digital planning.

Cybersecurity Operations Intern at Cyber Defense Center – National Security Tech Hub, Cairo – Egypt

May 2022 - December 2022

- Assisted in real-time monitoring of security events using SIEM platforms such as Splunk and Microsoft Sentinel, contributing to early threat detection.
- Performed vulnerability assessments on internal systems and documented findings with clear remediation steps, improving overall security posture.
- Supported incident response tasks including log analysis, threat classification, and isolating affected components during simulated attacks.
- Helped implement security hardening practices across servers and web applications, reducing exposure to common attack vectors.
- Participated in red-team/blue-team exercises that enhanced understanding of offensive and defensive operations.
- Gained hands-on experience with penetration testing tools such as Burp Suite, Nmap, OWASP ZAP, and Metasploit in controlled environments.

Skills

Cybersecurity & Penetration Testing: Experienced in identifying and exploiting system vulnerabilities, performing penetration tests on web applications and networks, and applying advanced security methodologies. Skilled in tools such as Burp Suite, Nmap, OWASP ZAP, Metasploit, and Kali Linux. Capable of assessing security risks, generating accurate reports, and implementing effective remediation strategies to strengthen overall system defense.

AI & Machine Learning: Experienced in training and deploying machine learning models for classification, prediction, and automation tasks. Skilled in data preprocessing, model optimization, and evaluating performance metrics. Proficient with Python, TensorFlow, and real-time AI integrations within security and robotics projects.

Programming: Solid understanding of network protocols, routing, firewalls, VPN technologies, and traffic analysis. Able to configure and troubleshoot network environments, assess network vulnerabilities, and enhance infrastructure security in high-availability systems.

DevOps: Knowledgeable in server deployment, CI/CD pipelines, containerization, and environment automation. Experienced with Linux server management, Git workflows, Docker, and performance monitoring to ensure stable and scalable operations.

Robotics: Hands-on experience developing embedded robotic systems using microcontrollers such as ESP32 and ESP32-C3. Skilled in sensor integration, motion control, AI-based decision making, and building autonomous features using C, Python, and low-level programming.

Web Security: Proficient in securing web applications through best practices and vulnerability testing. Skilled in identifying OWASP Top 10 risks, strengthening authentication flows, preventing injection attacks, and implementing multi-layer defensive mechanisms for high-traffic systems.

Cloud Security: Expertise in securing cloud environments, implementing access controls, threat monitoring, and compliance best practices.

Databases: Proficient in designing, managing, and optimizing SQL & NoSQL databases, with advanced querying and performance tuning skills.

System Architecture: Experienced in designing scalable and maintainable system architectures, defining system components, ensuring high performance, and facilitating service integration.

Volunteering

Volunteer Coordinator at Red Cross, Cairo, Egypt
January 2022 - December 2022

Event Organizer at Tech For Good, Online
March 2021 - November 2021

Youth Mentor at Local Community NGO, Alexandria, Egypt
January 2020 - December 2020

Projects

Ms. Esraa Fathy Platform · ↗
An educational platform providing online courses with structured curricula, interactive content, and student progress tracking.

3arabhack · ↗
A comprehensive online learning platform offering technical courses, tutorials, and community engagement for developers.

MRI Professional · ↗
A professional training platform focused on advanced medical imaging and MRI techniques for healthcare practitioners.

Gold Era Egypt · ↗
E-commerce platform specializing in jewelry and accessories, featuring product catalog, secure checkout, and order tracking.

FilterStore ERP · ↗
A comprehensive ERP solution specialized for water management and treatment companies. Includes a multi-role system for employees, a technician mobile app for maintenance tasks, a client app for service requests, and advanced features for operations, reporting, and workflow management.

Languages

Arabic - Native

English - Proficient

Certificates

OSCP – Offensive Security Certified Professional from Offensive Security
April 2024

Recognizes hands-on expertise in penetration testing, exploiting vulnerabilities, and performing controlled attacks in real-world environments.

CISSP – Certified Information Systems Security Professional from (ISC)²

December 2022

Recognizes advanced knowledge in information security, including risk management, security architecture, and governance.

eWPTX – Web Application Penetration Testing from eLearnSecurity

September 2023

Validates skills in web application security assessment, vulnerability exploitation, and remediation techniques.

CompTIA Security+ from CompTIA

January 2022

Demonstrates foundational skills in network security, threat management, cryptography, and risk mitigation.

Certified Ethical Hacker (CEH) from EC-Council

Validates expertise in identifying and addressing system vulnerabilities, penetration testing, and ethical hacking methodologies.

Meta AI Professional Certificate from Meta

August 2024

Covers AI and machine learning concepts, practical model deployment, and AI-driven problem solving.

OpenAI GPT Developer Certificate from OpenAI

January 2025

Demonstrates proficiency in developing AI applications using OpenAI APIs, natural language processing, and prompt engineering.

Python Programming Professional from Coursera / MIT

January 2023

Confirms expertise in Python programming, algorithm design, and software development best practices.