

MOHAMED ELAWADY

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OBJECTIVE

Cybersecurity and IoT professional with hands-on experience in network security, penetration testing, malware analysis, and cloud infrastructure. AWS Cloud Practitioner certified, pursuing Solutions Architect certification. Seeking to leverage expertise in cybersecurity frameworks, embedded systems, and cloud technologies to drive innovative security solutions.

EXPERIENCE

IoT Engineer

Jul 2023 - Dec 2023

Tuqnia

- Designed end-to-end IoT solutions using **ESP32**, **Arduino**, and wireless protocols (**Wi-Fi**, **BLE**) for industrial automation systems.
- Built secure device connectivity using **AWS IoT Core**, **ThingsBoard**, and **MQTT** protocols with encryption and authentication.
- Implemented **sensor integration**, **data analytics**, and real-time monitoring dashboards for industrial IoT use cases.
- Applied **Python** and **C++** programming to build scalable, secure IoT applications with embedded systems optimization.

Cybersecurity Intern

Sep 2022

CISA

- Performed risk assessments on critical infrastructure using **passive discovery** and **active reconnaissance** techniques.
- Gained **penetration testing** experience with **Metasploit**, **exploit development**, and **Python scripting** for automated vulnerability assessment.
- Participated in **simulated attacks**, **CTF challenges**, and **network security** analysis for threat detection and incident response.
- Contributed to security documentation and compliance reporting for critical infrastructure protection initiatives.

PROJECTS

Cloud-Integrated Health Monitoring System | *ESP32, Flutter, Firebase, CI/CD*

Jan 2024 - May 2024

- Developed real-time health monitoring system with **ESP32** microcontroller using **C++** and **AWS** cloud integration.
- Created **Flutter** mobile app with **Dart** and **Firebase** backend for **real-time data sync** and **automated testing**.
- Implemented secure data transmission protocols and encryption to ensure patient data privacy and compliance standards.

Active Directory Security Lab | *Kali Linux, Metasploit, Active Directory*

Sep 2023 - Nov 2023

- Built simulated corporate **Active Directory** environment using **Windows Server** to test vulnerabilities with **Kali Linux** and **Metasploit**.
- Executed **LLMNR Poisoning** and **Kerberoasting** attacks using **Python scripts**, developed **mitigation strategies** and **security hardening**.

Malware Analysis Lab | *Ghidra, Wireshark, radare2, OPSWAT*

Jun 2023 - Aug 2023

- Analyzed real-world malware using **Ghidra** for **static analysis** and **Wireshark** for **dynamic network analysis**.
- Identified **IOCs** and implemented **network-level blocking** strategies leveraging **OPSWAT** certification and **Python automation**.

CERTIFICATIONS

AWS Certified Cloud Practitioner

May 2025

OPSWAT OECA - Endpoint Security Certified Associate

Dec 2022

Cisco CCNA - Routing & Switching

Jul 2022

Currently pursuing: AWS Solutions Architect Associate

LANGUAGES

- Arabic - Native
- English - Intermediate

EDUCATION

Higher Institute of Engineering and Technology in New Damietta

Egypt

Bachelor of Electronics and Electrical Communications Engineering

Oct 2020 – Jul 2025