

Mariam Obeid - Cybersecurity Specialist

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SUMMARY

Cybersecurity Specialist with expertise in penetration testing, cloud/email security, and AI-driven threat detection. Skilled in privacy-preserving defense strategies and secure SDLC, currently pursuing a Master's in Systems and Networks at USJ.

EDUCATION

Université Saint-Joseph de Beyrouth (USJ)

Sep 2025 - Present

Master in Systems and Networks (Specialization: Information Security)

University of Sciences and Arts in Lebanon (USAL)

Sep 2022 - Jul 2025

Bachelor of Science in Computer and Network Security

- **Coursework:** Information Security, Web Application Security, Network Security, Ethical Hacking, Digital Forensics, Cryptography, Deep Learning

EXPERIENCE

American University of Beirut (AUB) - Research Assistant

Sep 2025 - Present

- Develop high-performance network processing and feature-extraction components on embedded/accelerated hardware platforms.
- Build and validate experimental security testbeds integrating hardware-in-the-loop architectures for real-time system evaluation.
- Support advanced cybersecurity research by implementing data pipelines, analyzing system behavior, and contributing to publishable findings.

Salem Group - Penetration Testing Intern

Aug 2025 - Sep 2025

- Performed penetration testing and secure code reviews on production web applications, identifying OWASP vulnerabilities and misconfigurations.
- Collaborated with development teams to implement remediation and improve secure SDLC practices.

Teknologiia - Cybersecurity & Systems Intern

Jul 2025 – Sep 2025

- Deployed Microsoft 365 Defender and CrowdStrike Falcon solutions, and configured DMARC/DKIM/SPF/BIMI to mitigate email spoofing risks.
- Managed SOC operations and administered cloud infrastructure, including Kubernetes clusters and containerized services.

SimBrain Solutions - Software Developer Intern

Sep 2024 – Dec 2024

- Developed a secure vehicle management platform with ASP.NET Core MVC and MySQL, implementing JWT-based authentication.
- Followed OWASP secure coding standards and collaborated with the security team on threat modeling and code reviews.

Ogero - Telecom and Network Engineering Intern

Jul 2024 - Sep 2024

- Optimized FTTx/DSL performance and conducted field assessments to strengthen network security.
- Oversaw telecom infrastructure design, troubleshooting, and optimization for national exchange points.

Semicolon Academy - Technical Ambassador

Aug 2024 - Jul 2025

- Facilitated hands-on workshops in ethical hacking and cryptography, promoting cybersecurity awareness across universities.
- Acted as liaison between technical mentors and student teams to drive inter-university collaboration and skills development.

SKILLS

- **Programming & Scripting:** Python, Java, C++, Bash, MySQL
- **AI & Machine Learning:** Deep Learning, PyTorch, Threat & Anomaly Detection, Lightweight ML Models
- **Security Tools & Technologies:** SIEM (Wazuh, ELK Stack), OpenVAS, Nessus, Wireshark, IDS/IPS, FortiGate, Autopsy, FTK
- **Operating Systems & Platforms:** Linux, Docker, Windows Server, Unix, GNS3
- **Core Cybersecurity Skills:** Risk Assessment, Threat Intelligence, System Hardening, Incident Response, Secure SDLC

PROJECTS

Distributed Intrusion Detection System for IoT/IoMT

Apr 2025 - Jul 2025

- Designed a distributed IDS integrating Federated Learning, Blockchain log integrity, and Explainable AI for IoT/IoMT environments.
- Built and evaluated lightweight ML classifiers with low false-positives, enabling collaborative anomaly detection while preserving data privacy.
- Applied SHAP-based interpretability and blockchain-based tamper-proof logging to deliver a robust, transparent, and reliable IDS.

Deploying & Securing Network Services

Apr 2025 - May 2025

- Deployed AD, DHCP failover, GPOs, SNMP, and secure web services using GNS3 and virtual machines.
- Hardened SSH and Apache, implemented firewall rules, automated backups, and simulated attacks using Kali Linux.

AI-Powered Threat Detection with Zeek & ELK Stack

Dec 2024 - Jan 2025

- Integrated Zeek with ELK and machine learning to detect anomalies in real time.
- Enabled early threat mitigation through automated alerts and behavioral analysis.

Automated System Integrity & Security Enforcement at Linux Boot

Jun 2024 - Jul 2024

- Created Linux boot-time integrity checks with Bash and systemd; automated detection of file, IP, and config changes.
- Strengthened boot-time security posture for mission-critical Linux systems.

Advanced Network Security & Management Toolkit

Apr 2024 - May 2024

- Developed a modular Python toolkit for ARP spoof detection, ECC encryption, and traffic analysis.
- Automated key security tasks, reducing manual effort by 60% and improving system efficiency.

Secure Energy Grid Company Network

Mar 2024 - Apr 2024

- Engineered a secure enterprise network using Cisco ASA, VPNs, VLANs, and GCP for segmentation and confidentiality.
- Achieved high availability with HSRP, EtherChannel, and AD-integrated DHCP in a scalable architecture.

CERTIFICATES

- CCNA (Cisco, 2024) / DFE (EC-Council, 2025) / CEH (EC-Council, In Progress, Expected 2026)