

Lina ABOUD

ICT Engineer • Cybersecurity & AI

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PROFILE

Motivated and reliable individual with strong skills in **cybersecurity** and **AI**. Gained over **3 years of experience** through academic programs, developing solid expertise in **system security** and **secure network architecture**, effectively connecting theory to practical implementation. Recognized for being **creative**, **decisive**, and **adaptable**, with a strong sense of **responsibility** and a results-driven mindset. Eager to apply technical expertise and problem-solving abilities to contribute to **innovative** and **secure** solutions.

EDUCATION

National School of Engineers of Tunis

2023 - Present

Information and Communication Technology Engineering Degree - Telecommunications & Cybersecurity

Tunis

ESST Hammam Sousse

2021 - 2023

Preparatory Cycle in Engineering Sciences – MPSI

Sousse

PROFESSIONAL EXPERIENCE

Information Security Research Intern

Jul - Sep 2025

Zitouna Bank - Network and Security Department

Tunis

- Designed a honeypot-based fraud data collection system using **T-Pot on AWS EC2**, capturing real-world attack traces.
- Enhanced datasets with **GAN-based augmentation**, simulating adversarial scenarios for anomaly detection.
- Proposed a novel **federated learning framework** for Tunisian banks to securely share cyber threat intelligence.

Computer Vision Intern

Jul - Aug 2024

SDSNT - IT Department

Kairouan

- Developed a **real-time YOLOv8-based safety system** to detect unconscious individuals for healthcare services.
- Optimized models for **lightweight IoT/edge deployment**, balancing accuracy and latency.

ACADAMIC PROJECTS

• Federated Learning for Intrusion Detection System

Oct 2024 - May 2025

End of Year Research Project (PFA)

Built a containerized **Federated IDS** using **Flower**, **TensorFlow Federated (TFF)**, and **Docker**. Implemented **aggregation algorithms** (**FedAvg**, **FedProx**) across simulated IoT institutions. Integrated **Differential Privacy**, ensuring GDPR compliance. Achieved **98.7% recall** on attacks.

• Cloud-Native IDS on AWS

Jan - Mar 2025

Cloud Security Project

Designed a scalable **AWS-based IDS** (EC2, Lambda, Step Functions). Integrated log analysis and anomaly detection pipelines.

• Network Simulation with eNSP and Packet Tracer

2023 - 2025

Academic Projects

Configured VLANs, OSPF, and firewalls in enterprise networks. Simulated **MAC protocols** (**CSMA**, **TDMA**, **FDMA**) to study link-layer efficiency and **security challenges in 5G**.

TECHNICAL SKILLS

Cybersecurity: IDS/IPS, Malware Detection, Threat Intelligence, Network Traffic Analysis, Security Compliance

AI/ML: Federated Learning, Aggregation Algorithms (FedAvg, FedProx), GANs, Differential Privacy, NLP basics, DL basics

Cloud & Edge: AWS (EC2, Lambda, Security Groups), Docker, Secure Cloud Architecture, Elastic Stack (Kibana, Elasticsearch)

Telecom/Networking: 5G Security, Link-Layer Protocols (CSMA, TDMA, FDMA), OSPF, VLANs, Firewalls, Secure Protocols

Programming: Python (advanced), C/C++, Java, Bash, LaTeX Tools: Git, Linux, Metasploit, Oracle, Eclipse, Matlab

CERTIFICATIONS

Certified Network Security Practitioner – SecOps Group

Cybersecurity Job Simulation – Forage (MasterCard)

Rapid Application Development with Large Language Models (LLMs) – NVIDIA

Fundamentals of Deep Learning – NVIDIA

AWS Concepts – DataCamp

Containerization & Virtualization – DataCamp

Linux & Unix Systems - Udemy

EXTRACURRICULAR ACTIVITIES

Webmaster

2023 – 2025

IEEE Computer Society

Tunis

- Strengthened public speaking, teamwork, and leadership skills through the coordination of events and workshops.

VIS-À-VIS Team Leader

Oct 2024

TUNED

Tunis

- Led a team of 7 members in planning and executing event logistics and technical operations.

LANGUAGES

• Arabic: Native

• French: Fluent

• English: Fluent

• German: Basic