

Aya Mostafa Ayoubi

Computer and Communication Engineer

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Profile

Results-driven Software and Computer Engineer with dual master's degrees in Research in Telecom, Networks and Security, and in Computer and Communication Engineering.

Strong expertise in **programming, web development, and software systems**, complemented by solid foundations in **telecommunications, security, and machine learning**. Passionate about developing innovative solutions and continuously learning, with the ability to connect theoretical knowledge to practical software applications.

Education

Master's Research Program – Telecom, Networks & Security

Lebanese University & Université Saint Joseph

2024 - 2025

Bachelor of Engineering – Computer & Communication Engineering

Lebanese University

2020 - 2025

Lebanese Baccalaureate – General Science

Collège des Filles de la Charité – Dar En-Nour

Experience

Research Intern – Data Management in the Multimodal Era: Applications in Healthcare, 2025

- University research project (LU and USJ) exploring advanced data integration and management for healthcare.
- ***First author of a paper accepted for presentation at the International Conference on HealthCare Information Systems and Technologies (HCist 2025), Abu Dhabi.***
- Reviewed cutting-edge methods (semantic web, ML, blockchain, context-aware quality).
- Built a POC integrating these technologies to boost interoperability, security, and data quality for multimodal healthcare data.
- Applied Natural Language Processing (NLP) techniques to analyze and structure clinical notes, improving usability of unstructured data.

AI Training – Alemni Foundation, 2024

- Focused on AI fundamentals, ML models, and real-world applications.

Intern – OGERO MINA Center, 2023

- Worked on telecommunications systems and infrastructure, including IMEWE submarine cable operations, data access, switching, and data transmission processes.

Technical Skills

Programming & Data: Python, Java, C#, MATLAB, SQL, FAISS

Web Development: HTML, CSS, JavaScript, ASP.NET

Big Data & Distributed Systems: Apache Kafka, Hadoop, Spark

Blockchain & Security: Hyperledger Fabric, Cryptography (AES, RSA), Consent & Access Control

Hardware & Embedded Systems: Arduino, Raspberry Pi, Assembly

Modeling & Design Tools: LabView, AutoCAD, OrCAD, Proteus

Operating Systems & DevOps Tools: Linux, Docker

Other: Object-Oriented Programming (OOP), Microsoft Office Suite

Projects

RMI Java App: Attendance & student info system

ML Projects: Suspicious link detection

Face Recognition: System on Raspberry Pi

Voice Noise Removal: Python-based application

Restaurant App: C# app using APIs

Car Rental System: SQL database project

Languages

English | French | Arabic
