

Aya Mostafa Ayoubi

Computer and Communication Engineer

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Profile

Software Engineer with dual master's degrees in Research in Telecommunications, Networks and Security, and in Computer and Communication Engineering.

Strong background 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 de Beyrouth 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

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, FAISS

Familiar with: PHP

Databases: SQL, MongoDB

Web Development: HTML, CSS, JavaScript, ASP.NET, WebSockets, REST APIs

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

Blockchain & Security: Hyperledger Fabric, Cryptography

Hardware & Embedded Systems: Arduino, Raspberry Pi, Assembly

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

Operating Systems, Cloud & DevOps Tools: Linux, Docker, Git

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

Projects

Final Year Project (Research)– Data Management in the Multimodal Era: Applications in Healthcare, 2025

- University research project (LU and USJ) exploring advanced data integration and management for healthcare.
- *Paper accepted for presentation at the 14th International Conference on Health and Social Care Information Systems and Technologies (HCist 2025): “Next-Generation Multimodal Data Governance in Healthcare: Integrating Blockchain, Quality Assurance and Semantic Intelligence.”*
- 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.

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
