Abderrahmane Fouzi ABOUZAID

Computer Science Student - 3rd year

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AWARDS

3rd place in PwC x ACC Consulting Case Game 18/11/2025
Awarded 3rd place for designing a data-driven and innovative solution addressing challenges in the renewable energy sector, assessed by a panel of professionals.

2nd place in CaptureTheFlag contest
1337 x Elitesec
Ranked 2nd among participating teams by successfully solving advanced cybersecurity challenges involving system exploitation, cryptography, web security, and digital forensics.

SKILLS

Programming languages :
- C / C++, Python, JavaScript, Java

Languages
- English (B2+), French (C1), Arabic (Fluent)

Web & Frameworks
- HTML, CSS
- Vue.js, Nuxt.js

Tools & Environments
- Git, GitHub, Linux

RELEVANT COURSES

Graph Algorithms, Data Structures & Algorithms

Linux Environment

Numerical Analysis, Computation Theory

Operating Systems, Computer architecture

ACADEMIC PROJECTS

Dynamic Graph-Based Epidemic Simulation in Vehicular Networks 11/2025 – 12/2025
Built a C simulation modeling infection spread among 8 moving vehicles using graph theory. Implemented dynamic adjacency matrix updates based on proximity detection, probabilistic disease transmission algorithm, and automated GraphViz export for 120-timestep visualization. Applied graph algorithms and SIR epidemic model principles to analyze network-based contagion patterns in mobile systems.

Developed **Medisphere**, a full-stack healthcare management system built with **Java 11**, **MySQL**, and **Nuxt.js/TypeScript**. I engineered a modular backend architecture using **Java Servlets** and implemented **DAO, Singleton, and Factory design patterns** to ensure clear separation of concerns and efficient resource management. The project features secure user authentication with **Bcrypt hashing**, session management via **HTTPSession**, and a type-safe API response wrapper utilizing **Java Wildcards** for robust data handling. Following an **Incremental SDLC**, I managed dependencies with **Maven** and executed a comprehensive testing strategy including Unit and Integration tests to ensure high performance and reliability for over 1,000 concurrent users. 09/2025 – 12/2025