

Sukaina Al-Hajj

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EDUCATION

Al Maaref University

B.S. in Computer Science | GPA: 3.79/4.0

Beirut, LB

Feb, 2026

EXPERIENCE

Software Engineering Excellence Program | By Sami Shames El-Deen

Oct. 2025 - Jan. 2026

- Built a backend application from scratch using **TypeScript** and **Express.js**, following industry best practices.
- Designed and implemented RESTful APIs with proper architecture and schema design.
- Applied SOLID principles and multiple design patterns (Factory, Builder, Repository, Mapper) to create scalable and maintainable code.
- Implemented secure authentication using **JWT**, refresh tokens, and cookie management.
- Developed CI/CD pipelines with **GitHub Actions** to automate testing and deployment.
- Worked with **SQLite** and **PostgreSQL** using the Repository pattern for data management.
- Deployed the application on **DigitalOcean**, configured **Nginx**, and managed processes with **PM2**.
- Wrote unit tests using **Jest** and implemented logging with **Winston** for debugging and monitoring.
- Used **Git** & **GitHub** for version control, including branching and collaboration workflows.

PROJECTS

Zaytuna | Senior Capstone Project

Feb. 2026

- Designed **Zaytuna**, a full-stack agricultural platform for Lebanon using **Laravel 12**, **React 19**, and a **FastAPI** Python microservice, serving nine distinct user roles with granular **RBAC**.
- Built an intelligent AI assistant using a **GPT-4o-mini** router that dynamically directs queries to either a **ChromaDB** RAG pipeline (semantic document retrieval) or a **LangChain** SQL engine (real-time natural language to MySQL), unified via **FastAPI**.
- Engineered a machine learning model using **Scikit-Learn** (Random Forest Regressor) to provide land rental price estimations.
- Crafted a responsive, role-based frontend with **React 19**, **Tailwind CSS**, and **Material UI**, featuring interactive dashboards built with **Recharts**.
- Built an integrated marketplace, job board, and professional services module connecting farmers, landowners, and verified agricultural experts on a single platform.
- Deployed a decoupled microservices architecture on **Railway** with custom domain, CORS-secured **Sanctum** authentication, and persistent volumes.
- Ensured reliability via **PHPUnit** feature and unit tests covering critical workflows.

Fatoush | Web Project

Jan. 2025

- Designed and developed a farmer's market e-commerce website using **Laravel** and **MySQL**, integrating **Laravel Breeze** for secure authentication.

TECHNICAL SKILLS

Languages: Java, C++, PHP, Python, HTML, SQL, JavaScript, TypeScript

Frameworks: Laravel, React.js, Node.js, Express.js

AI & ML: RAG, Scikit-Learn

Database: MySQL, SQLite

Tools & Testing: Git, GitHub, PHPUnit, Jest, VS Code, Cursor, Jupyter Notebook, Thunder Client

DevOps: GitHub Actions (CI/CD), Digital Ocean, Railway