

Hasan Diab

Software Engineer

Beirut, Lebanon | hasandiab331@gmail.com | [+961 71 944 385](tel:+96171944385)

Education

BS in Computer Science & Minor in Data Analytics

Lebanese American University (LAU)

September 2022 - Present

- MEPI Tomorrow's Leaders Gender Scholar 2023/2024.
- Dean's Honor List of the School of Arts and Sciences in all completed semesters.

Experience

Software Engineering Intern

CME offshore

July 2025 - August 2025

- Built a **full-stack Pet Shelter Management System** (Java Spring Boot, React + TypeScript)
- Designed and managed **relational (PostgreSQL)** and **document (MongoDB)** databases.
- Implemented **Camunda workflows** for automated adoption approvals.
- Integrated **secure payment workflows** with **Stripe**.
- Collaborated in an **Agile environment** with weekly sprints, daily stand-ups, and iterative delivery.
- Strengthened skills in **REST APIs, DTO mapping, UI/UX design with MUI, and version control (Git)**.

Model United Nations Assistant Under-Secretary-General for Training and Educational Development

Lebanese American University (LAU) — Beirut, Lebanon

July 2024 - July 2025

- Co-led **60+ trainers**, delivering content to **1500+ students**.
- Wrote, supervised, and copyedited research guides written by university student trainers.

Web/Odoo Development Intern

Tomorrow Services — Beirut, Lebanon

June 2024 - August 2024

- Worked on fullstack web projects using technologies such as Laravel, Vue and InertiaJS.
- Implemented the ERP system Odoo to streamline company processes.
- Met with Odoo representatives to tailor the software to the company's needs.

Projects

- **Machine Learning for Predictive Road Maintenance (Research Paper):** Developed a ML-driven model combining supervised, unsupervised, and reinforcement learning with IoT sensors, weather, and crowdsourced reports to predict road deterioration and recommend maintenance actions with urgency levels.
- **Computer Architecture Simulation:** designed datapath & control unit for a simple CPU.
- **Hospital DBMS (Oracle SQL):** streamlined operations with relational schema.
- **Civil Defense App (React + Django):** incident reporting tool for Lebanon's civil defense.
- **Parallel Neural Network implementation for NBA shot prediction using CUDA:** Parallelized a model for shot prediction based on the 2015-2016 NBA shot data.

Skills & Languages

- **Soft Skills:** Training & development, fast learning, public speaking, communication, flexibility, adaptability, teamwork.
- **Programming & Frameworks:** Java (Spring Boot), Python, JavaScript/TypeScript, React, Vue, Django, PHP
- **Technical Skills:** Linux, Bash, ERP systems, Odoo, Database Management, SQL, Data Visualization, Data Analysis, MS Office, BPMN, Camunda, Git, MongoDB.
- **Languages:** Arabic (Native), English (Fluent), French (Basic).