

ZAHRAA MANNOUN

BACKEND DEVELOPER | FULL-STACK SOFTWARE ENGINEER

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PROFESSIONAL SUMMARY

Backend and Full-Stack Software Engineer with hands-on experience developing scalable web applications, RESTful APIs, and database-driven systems using **NestJS, FastAPI, ASP.NET, React, Next.js, PostgreSQL, SQL Server, and TypeScript**. Currently pursuing a Master's degree in Business Computer Science. Passionate about building clean, maintainable software with strong emphasis on performance, scalability, and user experience.

EDUCATION

Master's Degree in Business Computer Science

Lebanese University | Beirut, Lebanon | 2024 – 2026 (Pending Thesis)

Bachelor's Degree in Business Computer Science

Lebanese University | Beirut, Lebanon | 2021 – 2024

PROFESSIONAL EXPERIENCE

Software Developer Intern

Fekrat AL Youm Technologies | Dubai, UAE (Remote) | June 2026 – July 2026

- Developed scalable RESTful APIs and backend services using **NestJS, TypeScript, PostgreSQL**, and **Prisma ORM** for a luxury hospitality platform supporting bookings, events, and reservations.
- Engineered a secure virtual wallet and payment system with transaction management, authentication (**JWT/Cookies**), and role-based access control.
- Designed and optimized relational database schemas, implemented migrations, and improved backend performance using **Supabase** and **PostgreSQL**.
- Built responsive web interfaces and administrative dashboards using **Next.js, React**, and **Tailwind CSS**, enhancing booking management and user administration.
- Collaborated in an **Agile development team** using **Git**, delivering secure, maintainable, and scalable software through code integration, debugging, and feature development.

SELECTED PROJECTS

TaxiGo AI – Kanz AI Hackathon (2026) | Python • FastAPI • React.js • Groq (Llama 3.3) • Socket.IO

- Developed a **trilingual (Arabic, English, French) AI voice-powered ride-booking assistant** enabling independent taxi drivers to manage bookings, scheduling conflicts, cancellations, status tracking, and earnings through natural language conversations.
- Engineered an **agentic workflow with 8 AI tools** for ride booking, cancellation, status tracking, and real-time **Socket.IO** reminders, integrating **FastAPI, PostgreSQL, React.js**, and **Groq (Llama 3.3)** to deliver responsive, intelligent booking automation.

TaxiGo Android App | Java • Android SDK • Room (SQLite) • OpenStreetMap • AlarmManager

- Developed an **offline-first native Android taxi booking application** for Lebanese taxi drivers, enabling full **CRUD** operations, client-trip relationship management, and earnings tracking across six intuitive application screens.
- Implemented **booking conflict detection** for overlapping reservations, integrated **OpenStreetMap** for location selection, and configured **AlarmManager** to deliver pre-trip reminder notifications, ensuring reliable offline booking management.

Click & Reserve | C# • ASP.NET • SQL Server

- Designed and developed a full-stack university resource reservation platform with **SQL Server** and **ASP.NET**.
- Implemented automated booking validation, payment expiration workflows, and an administrative management dashboard.

SKILLS

- Programming Languages:** Python, TypeScript, JavaScript, C#, Java, SQL, C, C++
- Frontend Development:** React.js, Next.js, Tailwind CSS, Razor Pages
- Backend Development:** NestJS, FastAPI, ASP.NET, REST APIs, Prisma ORM, Authentication (JWT & Cookies), Socket.IO
- Databases:** PostgreSQL, SQL Server, SQLite, Firebase, Supabase
- AI & LLM Technologies:** Groq (Llama 3.3), Google Gemini, AI Agents, Prompt Engineering
- Core Competencies:** Backend Development, Full-Stack Development, API Integration, Database Design, Object-Oriented Programming, MVC Architecture, Agile Development, Code Review, Software Testing, Problem Solving