

JOE MAZLOUM

Computer Science Student | Full-Stack Developer

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PROFESSIONAL SUMMARY

Computer Science student with hands-on experience in full-stack development, automation, and IoT systems. Skilled in building real-world applications using React, TypeScript, FastAPI, and Docker, with strong SQL and relational database design skills and experience handling structured data through XML, XPath, and XSLT. Comfortable working on finance-oriented systems such as billing, invoicing, and transaction workflows. Experienced in integrating third-party APIs and leveraging AI tools to accelerate development while maintaining a strong understanding of system architecture. Recognized for problem-solving ability, adaptability, and continuous learning.

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Python, C/C++, Java

Frontend: React, Tailwind CSS, Bootstrap

Backend: FastAPI, Express.js

Databases: SQL (complex queries, joins, aggregations, views, stored procedures), PostgreSQL, relational schema design and architecture, normalization

Data & Markup: XML, XPath, XSLT, JSON, XML schema design and document transformation

Tools & DevOps: Docker, Git, GitHub, Sourcetree, Jira, Trello

AI & Automation: LLM API integration (Vertex AI), Claude Code, Python workflow automation

Domain Knowledge: Finance fundamentals — billing and invoicing systems, pricing and tariff logic, financial reporting concepts

Other: Shopify development, WordPress development

PROJECTS

Electricity Billing System

React, TypeScript, FastAPI, PostgreSQL

- Built a full-stack electricity billing system for retailers in Lebanon using React, Tailwind, TypeScript, FastAPI, and PostgreSQL.
- Designed and implemented a complex relational database schema covering billing, customers, and meter readings, with SQL queries and aggregations driving consumption calculations and invoice generation.
- Implemented tariff and billing logic reflecting real-world pricing rules, payment tracking, and outstanding balances.
- Integrated the WhatsApp third-party API for automated customer communication and billing notifications.
- Focused on scalability and real-world business logic.

AI-Powered Shopify Store (Custom Kids' Story Books)

Shopify, FastAPI, PostgreSQL

- Developed a Shopify store with a custom backend and database.
- Integrated an LLM to dynamically generate personalized children's stories.
- Customized the storefront using Shopify CLI and Liquid templates.
- Built backend services using FastAPI and PostgreSQL.

IoT Egg Incubator System

Arduino, React, Express.js

- Designed and built a combined hardware and software system using Arduino.
- Integrated temperature and humidity sensors for automated environmental control.
- Developed a React and Express.js web application for remote monitoring and control.
- Handled real-world electrical setup and hardware interfacing.

AI Video Automation System

Python, AI APIs

- Built an automation pipeline that generates images with AI, converts them into videos, and uploads content automatically to multiple platforms.
- Implemented automated AI-generated descriptions and metadata.
- Focused on scalability and multi-platform content distribution.

WORK EXPERIENCE

- Activities Monitor — Swings CampZaraoun, Matn, Lebanon | Full-time | 2020 - 2025
- Supervised and led group activities for campers in a fast-paced environment.
 - Developed leadership, communication, and responsibility skills.
 - Managed teamwork and problem-solving across dynamic, changing situations.

EDUCATION

- Bachelor of Science in Computer ScienceOct 2023 - 2026
- Lebanese University — Fanar, Lebanon

CERTIFICATIONS

- Digital Marketing Certification — HubSpot AcademyIssued Jul 2026 - Valid Aug 2027
- Certified in SEO, content marketing, social media strategy, video engagement, paid advertising, and marketing analytics — complementing hands-on Shopify and WordPress development experience.

LANGUAGES

Arabic (Native) | English (Fluent) | French (Fluent)