

# MOHAMMAD AYOUB

AI Engineer · Full-Stack Development

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## SUMMARY

Computer Science graduate and SE Factory AI Engineering Bootcamp alumnus with a strong portfolio of AI-powered applications spanning NLP, machine learning, RAG, agentic systems, and full-stack delivery. Comfortable across the stack from training and serving ML models with FastAPI and Docker, to building cross-platform mobile apps with Flutter, to designing production-grade backends with Celery, PostgreSQL, and vector databases.

## EXPERIENCE

### Teaching Assistant

Sept 2024 – Feb 2025 | Beirut Arab University

- Led lab sessions for undergraduate computer science courses on programming fundamentals and applied projects.
- Provided one-on-one debugging support, code review, and project guidance across assignments and final projects.
- Assisted instructors with exam preparation, grading, and student evaluation.

### Freelance Developer

2023 – Present | Independent

- Delivered freelance web and mobile development projects for clients across React, Flutter, and FastAPI stacks.
- Completed Udemy courses in AI engineering, LLM application development, and modern web frameworks.

## PROJECTS

### SoukPilot AI — Capstone

Developed during SE Factory AI Engineering Bootcamp · 2026

GitHub: [github.com/mohammadayoubb/soukpilot-ai](https://github.com/mohammadayoubb/soukpilot-ai)

**AI operations copilot for Lebanese SMEs — invoices, WhatsApp orders, and stock records into structured ops.**

- Invoice OCR + LLM extraction, agentic GPT-4o assistant, voice copilot (Whisper/TTS), anomaly detection.
- Hybrid RAG: BM25 + ChromaDB vector search via Reciprocal Rank Fusion.
- FastAPI, SQLAlchemy 2, Celery + beat, Pydantic + PII guardrails, 71 pytest tests.

### Decision Intelligence Assistant

GitHub: [github.com/mohammadayoubb/decision-intelligence-assistant](https://github.com/mohammadayoubb/decision-intelligence-assistant)

**Customer support triage — classifies query urgency and generates grounded responses.**

- ML urgency classifier + Qdrant RAG pipeline + LLM baseline.
- Benchmarked RAG vs. non-RAG vs. ML on cost, latency, and quality.

### AI Real Estate Agent

GitHub: [github.com/mohammadayoubb/ai-real-estate-agent](https://github.com/mohammadayoubb/ai-real-estate-agent)

**Predicts property prices from natural-language descriptions.**

- LLM feature extraction + Scikit-learn regression + LLM explanation; Dockerized FastAPI to Render.

## CORE SKILLS

- Languages: Python, Java, JavaScript, TypeScript, PHP, Dart
- AI / ML: PyTorch, Scikit-learn, Hugging Face, OpenAI (GPT-4o, Whisper, TTS), Ollama, RAG (BM25 + vector), agentic tool-calling
- Web & Mobile: FastAPI, Laravel, Node.js, React, Flutter, Streamlit
- Tools & Infra: Docker, PostgreSQL, Celery, Redis, ChromaDB, Qdrant, Firebase, Supabase, Git/GitHub, Render

## EDUCATION

- AI Engineering Bootcamp — Graduated 2026 · SE Factory · Beirut
- M.Sc. Computer Science — On hold · BAU · GPA 3.53
- B.Sc. Computer Science — Graduated · BAU · GPA 3.23

## CERTIFICATIONS & LANGUAGES

IELTS Band 7.5 (Advanced) • IC3 Digital Literacy Certification • English (Fluent) • Arabic (Native)