ALI MANTACHE

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OBJECTIVE

Innovative R&D AI Engineer and Full Stack Developer with 5+ years of experience delivering scalable software solutions and AI integrations. Passionate about building efficient, high-impact systems and staying at the forefront of emerging technologies. Seeking to contribute my expertise in full stack development and AI-driven solutions to a forward-thinking company, while continuing to grow professionally and drive innovation together.

SKILLS

- **Programming Languages & Frameworks**: Python, FastAPI, Node.js, Express.js, React.js, Next.js, TypeScript, JavaScript, PHP, HTML5, CSS3, Tailwind CSS, Bootstrap, and Shadcn/UI.
- **Databases**: PostgreSQL, MongoDB, MySQL, SQL Server, and Redis.
- **AI/ML & Data Science**: LLMs (LoRA, QLoRA Fine-tuning), NLP/NLU, LangChain, Hugging Face Transformers, YOLO, OpenCV, Pandas, Spark, and Kafka.
- **DevOps & Tools**: Docker, Docker Compose, Git, GitHub Actions, and CI/CD pipelines.
- **Architecture**: Microservices, REST APIs, Real-Time Data Streaming (Socket.io, Apache Kafka), and Event-Driven Systems.
- **Project Management**: Agile (Scrum), Canva, UML, Figma, ClickUp, Miro, and draw.io.
- **Other Skills**: Web Scraping (Beautiful Soup, Scrapy).
- **Languages**: Arabic (Native), English (Good), and French (Good).

EXPERIENCE

Research and Development AI Engineer | Intelligencia.fr | Remote | 2024 - Present
- Contributed to AI research projects, specializing in LLM fine-tuning, system integration, and scalable AI-driven solutions.
- Collaborated with cross-functional teams to integrate AI capabilities into product offerings.
- Developed responsive frontend web interfaces using React.js, Node.js, and Vanilla JavaScript, with robust input validation and comprehensive error handling.

Technical Instructor & Mentor | Various Institutions | 2017 - 2024
- Led 6 cycles as Lead Instructor at ESA Coding Lab (partnership with ESIEE-IT France and AFD), delivering intensive training on Full Stack Development, MERN Stack, and modern web technologies.
- Conducted 3 MERN Stack bootcamps with Tatweer Baladna Organization, teaching React.js, Node.js, Express.js, and MongoDB fundamentals.
- Delivered Python programming seminars and Excel training at ESA Business School, PHP programming at MUC University, and Computer Science at the Official Technical School in partnership with IECD.
- Trained 300+ students across multiple technologies and locations, creating market-aligned curricula focused on real-world web development and project-based learning.

Full Stack Developer | Web Development Lead | Software Development Company + Freelance | 2020 - 2022

- Led a development team of 15, mentoring and delivering end-to-end web projects, including custom WordPress themes, SEO optimization, and responsive UIs, while implementing Agile practices for improved collaboration.
- Built a full-featured POS system with real-time inventory tracking, invoicing, and expense management using PHP, MySQL, JavaScript, and Bootstrap.

PROJECTS

Enterprise AI Chatbot with Dynamic Database CRUD | 2025
- Built an AI-powered chatbot capable of translating natural language into dynamic SQL/NoSQL queries with secure input sanitization and JWT authentication.
- Fine-tuned TinyLlama-1.1B-Chat using LoRA techniques for optimized CPU performance (8GB RAM) and prototyped solutions using Ollama, Llama 3, and Mistral 7B with Streamlit.
- Developed a responsive Next.js UI featuring interactive data visualization, advanced table operations (filtering, sorting, searching), and CSV export functionality.
- **Tools:** Python, FastAPI, PostgreSQL, Next.js, Hugging Face, LoRA, Google Colab, LangChain, Ollama.

Dynamic SaaS Database Management System | 2024
- Architected a multi-tenant SaaS platform with secure database isolation, dynamic schema operations, and context-aware CRUD validation.
- **Tools**: FastAPI, PostgreSQL, Next.js, Docker, Shadcn/UI.

AI-Powered Music Discovery Platform | 2024
- Built a full-stack music discovery platform integrating Google Gemini AI with the Spotify API, featuring a responsive grid-based UI, intelligent contextual chat, and optimized API consumption and caching.
- **Tools**: Node.js, React.js, Express.js, MongoDB.

Intelligent Real-Time Data Streaming Platform | 2024
- Designed a scalable real-time event correlation system using Apache Kafka, Spark, and Delta Lake for data processing, along with YOLOv8 and OpenCV for custom face and object detection.
- Developed a responsive React.js UI for real-time data visualization and implemented a FastAPI backend for scalable data processing and API services.
- **Tools:** Kafka, Spark, YOLOv8, OpenCV, React.js, FastAPI, Delta Lake.

EDUCATION

- **Master's Degree in Computer Science and Risk Management**
  Lebanese University | Faculty of Sciences | 2015 - 2017
- **Bachelor's Degree in Computer Science**
  Lebanese University | Faculty of Sciences | 2012 - 2015

CERTIFICATIONS

- DevOps, MLOps, WebFlow, Time Management, Communication | SE Factory | 2025
- GenAI, Prompt Engineering, Employability Skills | SE Factory | 2025
- Full Stack Web Developer Certification | ESIEE[IT] France | 2022
- Ethical Hacking Foundation | Semicolon Academy | 2022