

ABDALRAHMAN WAEL

Software Engineer (Full Stack / Backend)

✉ Abdalrahmann.Wael@gmail.com 📞 +201060657895 🌐 Abdalrahman Wael 📄 AbalrahmanWael

PROFESSIONAL SUMMARY

Full Stack Engineer specializing in scalable backend systems and production infrastructure, with deep experience in AI/ML integration. Architected and shipped 300k+ LOC e-commerce platform from scratch with autonomous AI agents, serving real paying customers. Expert in TypeScript/Node.js, PostgreSQL, and building developer tools. Strong foundation in system design, LLM fine-tuning, and modern web technologies, capable of building intelligent, production-grade applications end-to-end.

PROFESSIONAL EXPERIENCE

Software Engineer

Dkilo

Present
Giza, Egypt

- Core engineer on an ai-powered marketing and distribution platform (fuzzbucket).
- Design and implement ai-driven agents for marketing automation and content distribution.
- Optimize system performance, latency, and reliability across inference and backend services.
- Build end-to-end fullstack features (frontend, api, db, infra) for production-scale products.
- Improve model capabilities through prompt engineering, evaluation loops, and retrieval pipelines.
- Contribute to architecture decisions around scalability, observability, and deployment.

Founder & Lead Engineer

Okiynai - AI-powered e-commerce platform with autonomous agents serving 50+ merchants

05/2025 – 12/2025

- Architected and shipped 300k+ LOC production platform from scratch serving 50+ paying merchants with complete e-commerce ecosystem: payments (Stripe), order tracking, multi-currency, subscription billing, hosting infrastructure
- Designed and implemented RQL (Resource Query Language) - declarative API protocol with automatic batching, type safety, and query optimization
- Built custom web framework on Vite with advanced rendering engine optimized for performance at scale
- Integrated autonomous AI agents (DSPy) for site building and store management, handling thousands of AI-powered requests in production

Parameter-Efficient Fine-Tuning Researcher

Fast.ai Local Research Group - Benchmarking modern PEFT methods on small language models

01/2025 – 03/2025

- Built distributed multi-GPU training infrastructure on Modal cloud for benchmarking modern fine-tuning methods on small language models
- Developed evaluation pipelines and data processing systems for large-scale ML experiments

PROJECTS

Myntrea: Advanced Rich-Text Notebook Engine

Developed 60,000+ lines of TypeScript/Next.js/React code featuring free-placement grid system with collision detection, modular cell ecosystem supporting Markdown with LaTeX, media cells, and interactive elements. Engineered real-time sync between IndexedDB and PostgreSQL with conflict-free merge algorithms and comprehensive plugin API.

RQL

A lightweight alternative to GraphQL designed for modern applications and AI agents. Define your API contracts once, get automatic schema discovery, type-safe resolvers, and efficient relation batching.

StreamWeaver

Server-Sent Events (SSE) implementation for agentic AI workflows.

Transformer & LLM Implementations:

Built transformer and GPT-2 & Llama3 architectures from scratch with full training pipelines

Nafsi AI: Mental Wellness Chatbot - Graduation Project

Bilingual AI therapy chatbot with "small model, big memory" architecture

09/2024 – 06/2025

- Fine-tuned 360M-parameter SmolLM2 using LORA on consumer hardware with under \$50 compute cost
- Built production grade chatbot platform with RAG system using Weaviate vector database and bilingual BERT embeddings for long-term user memory with a full stack application, real-time chat, journal integration

EDUCATION

Bachelor of Science in Computer Science

Modern Academy for Computer Science and Management Technology

CGPA: **3.74/4.0** (~9.0/10 Dutch grading scale)

10/2021 – 06/2025

Maadi, Cairo

TECHNICAL SKILLS

Web Development

React, Next.js, PostgreSQL, REST APIs, WebSocket, Socket.io, Drizzle ORM, NGINX, Docker

DevOps & Tools

Git/GitHub, Linux, Modal Cloud, CI/CD, VPS Management, Cloudflare, Performance Optimization

Programming

Python, TypeScript/JavaScript, C/C++, SQL., Node.js

AI/ML

PyTorch, TensorFlow, LORA/DORA/rsLORA, RAG Systems, Transformer Architectures, Agentic AI, DSPY, Diffusion Models, PEFT, LLM Fine-tuning, Vector Databases (Weaviate), Hugging Face, Multi-GPU Training

LANGUAGES

Arabic

Native/Bilingual

English

Fluent

Dutch

Beginner

LEADERSHIP & COMMUNITY

Founder & Technical Lead

Built Discord community to **3,100+** active members with structured mentorship and weekly Arabic technical talks

01/2024 – Present

Head of Machine Learning

Conducted ML workshops; secured **2nd** place in Solution Challenge Egypt hackathon

10/2021 – 02/2023