

MOHAMED ALSAYED ABDELHAMED

Backend Engineer & Full Stack Developer

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Objective

Third-year Computer Science and Artificial Intelligence student at Cairo University (FCAI) and Backend AI Engineer Intern at FlyRank AI. Focused on backend engineering and Agentic AI, with hands-on experience in Node.js, authentication and authorization systems, and Supabase-backed services. Looking to grow into an AI Engineering role that combines full-stack backend development with practical, production-grade AI integration.

Education

Bachelor of Computer Science 2024 — 2028

Major: Computer Science and Artificial Intelligence — Faculty of Computing and Artificial Intelligence (FCAI), Cairo University
GPA: 3.38/4
Currently in third year; coursework includes Object-Oriented Programming and Software Engineering.

Experience & Internships

Backend AI Engineer Intern — FlyRank AI June 2026 — Present

Remote, project-based internship — backend development with AI service integration and Agentic AI architectures.

- Implement authentication and authorization flows (JWT-based) for backend services.
- Build and integrate backend features using Supabase for data storage and auth.
- Containerize and run backend services with Docker as part of the development workflow.
- Work on AI-powered backend solutions, integrating AI services and Agentic AI architectures into web applications.

Courses & Certifications

MEAN-Stack Web Development 26 July — 20 August 2026

National Telecommunication Institute (NTI) / ITIDA, Cairo — 120 hours (90 technical + 30 freelancing) — Score: 100%

Intensive summer training program covering MongoDB, Express.js, Angular, and Node.js, combined with freelancing and professional-skills modules; built a full production-style application (FitLink) as the technical capstone.

React Frontend Development Track — Digital Egypt Pioneers Initiative (DEPI) Started 25 July 2026 — In Progress

Government-backed technical training track focused on React.js and frontend development fundamentals.

Skills

Technical: • HTML • CSS • Python • JavaScript • Node.js • Express.js • MongoDB • Angular • React.js • PostgreSQL • Supabase • Neon • FastAPI • REST API • JWT authentication & authorization • Socket.io

Computer Skills / DevOps: • Docker • Linux (CLI) • Git • GitHub

Projects

FitLink — Gym & Coach Subscription Platform

August 2026 (1 week)

Built during NTI training — MEAN stack (MongoDB, Express, Angular, Node.js)

[GitHub Repo](#)

- Designed the subscription lifecycle: payment-gated activation, pending/active/expired/cancelled state machine, and one-active-subscription-per-trainee enforcement via unique partial DB indexes.
- Built real-time chat between trainees and coaches with Socket.io, gated to paid active subscriptions, plus a persisted notification system.
- Integrated Paymob for online payments, including HMAC-verified webhook handling and a background job for auto-expiry and renewal reminders.
- Implemented JWT-based auth, role-based guards, and role-specific dashboards (trainee, coach, employee, admin) across the Angular frontend.

FarmOps — Database Manager

2025

FCAI — Project

[GitHub Repo](#)

- Built a professional MS SQL Server database management interface with a dashboard, full CRUD on all tables, and JOIN query support.
- Implemented visual table cards, JOIN result visualization, and a responsive dark-theme UI.

FCAI-Visualizer

2025

FCAI — collaborative educational platform

[GitHub Repo](#)

- Contributed to an educational platform for algorithm and data structure visualization.
- Built tree-structure visualizations with AVL self-balancing and graph traversal (BFS, DFS) with shortest-path support.
- Added AI-integrated educational services for sorting and searching algorithm visualizations.

Portfolio Template

2025

Personal Project

[GitHub Repo](#)

- Built a fully-featured portfolio template with Next.js App Router and Supabase, including a content-editing admin panel.
- Used Next.js 16, React 19, Supabase PostgreSQL, and EmailJS; implemented secure /admin authentication.
- Built a form-based CMS with tag inputs and order_index-based item reordering.

BudgetWise

2024

FCAI — Project

[GitHub Repo](#)

- Built a desktop personal budgeting application with Java and JavaFX for tracking income and expenses.
- Implemented per-category budget management with alerts and financial reports (pie/bar charts).

Additional Information

Languages: Arabic — Native (listening, speaking, writing); English — Professional working proficiency (listening, speaking, writing)