

# Mohamed Mansour

Software Engineer (Backend)

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## PROFILE

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**Backend Software Engineer** with a focus on building scalable backend systems using **NestJS**, **Node.js**, and **Express**. Interested in software engineering beyond coding, particularly in how backend architecture impacts product quality and **business outcomes**. Participated in large-scale **hackathons** and achieved **top 10 rankings**, gaining strong experience in teamwork, problem-solving, and delivering solutions under pressure.

## EDUCATION

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**Faculty of Computers and Information, Tanta University** 

2022 – 2026

Bachelor of Computer Science

- **Cumulative GPA:** 3.1/4
- **Major:** CS

## AWARDS & HACKATHONS

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**Top 10 - Appout Hackathon 2025** 

12/2025

Ranked among the top 10 teams out of 120+ projects. Contributed to building **Auditly**, a LegalTech SaaS solution that integrates AI with human legal expertise.

**Top 23 – Grand Egyptian Museum (GEM) Hackathon** 

12/2025

Finalist (Top 23 / 103 teams). Built a data collection system to transform visitor feedback into meaningful insights for improving **museum operations**.

## PROFESSIONAL EXPERIENCE

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**Backend Intern – Appout ITS**

02/2026

Appout is a technology firm specializing in AI-powered business solutions and omnichannel communication platforms, including RoboDesk.

Tanta

- Participating in a **rotation program covering the full SDLC**, with exposure to Operations, QC, Product Ownership (PO), AI, and DevOps.
- Gained **practical insights into professional engineering standards**, focusing on turning requirements into production-ready code.

**Ghaymah Systems - Devops Training** 

09/2025 – 10/2025

- Gained hands-on experience with cloud infrastructure and CI/CD pipelines using tools like Docker
- Learned the fundamentals of DevOps practices, including deployment automation and server monitoring

**Artificial Intelligence – NTI/Huawei Egyptian Talent Academy Intern** 

01/2025 – 02/2025

Ministry of Communications and Information Technology

- Completed practical training in AI and machine learning principles using Python.
- Gained knowledge of essential algorithms in both supervised and unsupervised learning.
- Explored deep learning techniques, including convolutional neural networks (CNNs) for image analysis and classification tasks.
- Developed small-scale AI projects involving data preprocessing, model development, and performance evaluation.

**ITI - IOT Summer Training** 

09/2025 – 09/2025

Internet of Things (IoT) Application Development

- Completed training covering the IoT ecosystem, application design, and hands-on hardware implementation.
- Developed several IoT project prototypes utilizing the *Master of Things* platform.
- Acquired practical experience in connecting sensors, gathering and analyzing data, and establishing cloud communication channels for IoT systems.

## PROJECTS

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### University Attendance System (Backend) ☀

*College Project | Collaborated with a teammate*

- **Stack:** Node.js, Express, TypeScript, MongoDB, JWT, QR Code, Geolocation, Device Fingerprinting
- **Responsibilities:**
  - Developed backend APIs for attendance management with secure role-based access
  - Implemented dynamic QR code generation integrated with geolocation and device ID verification to prevent fraud
  - Designed data models for classes, sections, and attendance records
  - Built features for manual attendance recording, real-time attendance statistics, and Excel export functionality

### Football Match Tracker (Backend) ☀

*Personal Project*

- **Stack:** NestJS, TypeORM, PostgreSQL, RESTful APIs, Football-Data.org API ☀
- **Responsibilities:**
  - Designed and implemented backend services to fetch and store real-time football match data from external APIs.
  - Developed structured RESTful endpoints for retrieving match details, teams, and statistics.
  - Integrated database persistence with TypeORM and optimized queries for performance.
  - Applied modular architecture principles using NestJS for scalability and maintainability.

### Natours - Travel & Tour Booking Platform ☀

*Learning Project*

- **Stack:** Express.js, MongoDB, Mongoose, JWT, RESTful APIs
- **Responsibilities:**
  - Implemented user authentication and authorization using JWT
  - Developed full CRUD functionality for tours, users, reviews, and bookings
  - Applied data validation, centralized error handling, and Express middleware
  - Enhanced API security with compression, rate limiting, and best practices

### E-Commerce Backend API (In Progress) ☀

Developing a full-scale e-commerce backend API using **NestJS** and **PostgreSQL**, following a modular architecture that allows for future implementation of core e-commerce features including products, orders, payments, notifications, and other essential platform capabilities.

## SKILLS

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**Programming Languages & Frameworks:** JavaScript, TypeScript, Node.js, Express.js, NestJS

**Databases & ORM:** MongoDB, Mongoose, PostgreSQL, TypeORM

**Core Computer Science Skills:** Data Structures, Algorithms, Problem Solving, Object-Oriented Programming (OOP), Operating Systems

**Backend Development Skills:** RESTful API Design, Authentication & Authorization, Error Handling & Logging, Backend Security, Performance Optimization, Testing & Debugging

**Tools & Technologies:** Git, GitHub, Postman, Swagger/OpenAPI

**Soft Skills:** Communication Skills, Team Leadership, Teamwork, Project Planning

## FAMILIAR WITH

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| • HTML   | • CSS              | • C++ |
| • Python | • Machine Learning |       |

## LANGUAGES

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| • Arabic | • English |
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