# Mohamed Ahmed Mahmoud

## Junior MEAN Stack Developer

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## PROFESSIONAL SUMMARY

Junior MEAN Stack Developer with a strong foundation in CS principles (Data Structures, Algorithms). Proficient in building scalable MVC architectures and RESTful APIs using Node.js, Express, and Python. Active competitive programmer (C++) focused on algorithmic efficiency and problem-solving.

## EDUCATION

**Diploma in Software Engineering (1-Year Intensive)**                                   Sep 2025 – Jun 2026
*EPIC Institute of Technology*

○ **Core Coursework:** Advanced Data Structures, Algorithms, Backend Architecture, System Design.
○ rigorous curriculum with comprehensive exams comparable to formal CS degree requirements.

**Bachelor of Tourism and Hospitality**                                   Oct 2022 – Jul 2026
*Mansoura University*

## PROFESSIONAL EXPERIENCE

**Full Stack Developer Trainee**                                   Mansoura, Egypt
*National Telecommunication Institute (NTI)*                                   Jun 2025 – Oct 2025

○ Completed 210-hour intensive training focused on MEAN stack architecture and Agile methodologies.
○ Executed freelance client contracts and technical tasks alongside training, delivering features on deadlines.
○ Translated business requirements into functional technical specifications and reusable code modules.

## TECHNICAL SKILLS

○ **Backend:** Node.js, Express.js, Django, DRF, Python, JS/TS.
○ **Frontend:** Angular, HTML5, CSS3, Bootstrap.
○ **Databases:** MongoDB, Mongoose, PostgreSQL, MySQL.
○ **CS & Tools:** C++, Data Structures, Git, Docker, Postman, Hugging Face, ANTLR4.

## FEATURED TECHNICAL PROJECTS

**StreamLang Compiler  Playground** | *Python, Docker, Hugging Face*

○ Built a custom programming language and live online playground for real-time code execution.
○ Containerized app using **Docker** and deployed to **Hugging Face Spaces** for a stable runtime.
○ Engineered a robust suite of **84+ tests** (E2E, Negative, Unit) to guarantee compiler accuracy.

**SmartCart E-Commerce** | *Angular, Node.js, TypeScript*

○ Built full-stack platform exposing **25+ RESTful endpoints** for products, cart, and orders.
○ Developed responsive SPA with Angular, implementing **70+ unit tests** for component stability.
○ Optimized DB queries and lazy loading, reducing initial page load time by **40%**.

**Coffee Shop MVC Application** | *Node.js, Express, MongoDB, MySQL*

○ Architected MVC app with **dual-database system** (MongoDB/MySQL) and **Chart.js** analytics for 50+ products.
○ Implemented secure Role-Based Access Control (RBAC), reducing unauthorized access risks by **100%**.

## CERTIFICATIONS

○ **JavaScript Algorithms and Data Structures** (FreeCodeCamp)
○ **Advanced Django: Mastering Django and DRF** (Codio)
○ **IBM Generative AI: Introduction and Applications**
○ **SQL for Data Science** (UC Davis)
○ **Foundations of Coding Full-Stack** (Microsoft)