

Abdelrahman Ahmed Hassan Atia

Egypt, Giza, 6 October

abd.ahmed.hass@gmail.com | +20 01145771230 | GitHub: Abdelrahman730 | Military Status: Exempted

Professional Summary

Backend Engineer with expertise in designing scalable server-side architectures, RESTful APIs, and high-performance database systems. Proficient in containerization, CI/CD automation, and cloud orchestration. Strong foundation in algorithmic design, system optimization, and building production-ready backend infrastructure.

Technical Skills

Backend Development: Node.js, PHP, Python, RESTful API Design, Microservices Architecture, Server-Side Logic

DevOps & Infrastructure: Docker, Kubernetes, Jenkins, CI/CD Pipelines, Linux, Bash Scripting, Git

Databases: MySQL, Database Design, Query Optimization, Schema Architecture

Programming Languages: C++, C, Python, JavaScript (ES6+)

Additional: TensorFlow Lite, Computer Vision, Algorithm Design, System Performance Optimization

Professional Experience

Teaching Assistant, Computer Science Department German University in Cairo (GUC), Cairo	Oct 2025 – Present
<ul style="list-style-type: none">Mentor 200+ students in Advanced Programming, Data Structures, and Software Engineering with focus on backend system design and algorithmic problem-solving.Conduct technical lab sessions covering server-side development, API design, and database optimization.	

Junior Teaching Assistant, Computer Science Department Nile University, Giza	Oct 2020 – Feb 2021
<ul style="list-style-type: none">Supported core programming courses and guided students through backend-focused software development projects.	

Key Backend Projects

DevOps Web Deployment & Pipeline Orchestration	Nov 2025
<ul style="list-style-type: none">Architected containerized backend infrastructure using Docker with multi-stage builds for optimized deployments.Built automated CI/CD pipeline with Jenkins for continuous integration, testing, and production deployment.Orchestrated microservices architecture using Kubernetes for horizontal scaling and high availability.	

Restaurant Management System Backend	June 2022
<ul style="list-style-type: none">Developed RESTful API backend using Node.js with Express framework for order and inventory management.Designed normalized MySQL database schema with complex relationships and implemented query optimization.Implemented role-based access control (RBAC) middleware and JWT authentication for secure API endpoints.Built React.js frontend consuming the backend API with real-time dashboard analytics.	

University Management System Backend	Jan 2022
<ul style="list-style-type: none">Built full-featured academic portal backend with PHP, managing student registration, grading, and attendance systems.Designed relational database architecture with MySQL for handling complex academic data relationships.Implemented session-based authentication and role-based authorization for students, faculty, and administrators.	

ASSIST ME: Computer Vision Backend System	June 2023
<ul style="list-style-type: none">Engineered backend processing pipeline for real-time OCR and object detection using YOLOv8 and TensorFlow Lite.Optimized model inference performance for mobile deployment, achieving 95% accuracy in text recognition.Integrated CNN-based facial recognition system with distance estimation algorithms.	

Interactive Parse Tree Visualizer	June 2023
<ul style="list-style-type: none">Developed high-performance C++ backend for real-time code tokenization and abstract syntax tree generation.Implemented efficient parsing algorithms with Vulkan-based rendering engine for low-latency visualization.	

Regex-to-Finite-Automaton Engine	June 2022
<ul style="list-style-type: none">Built C++ logic engine to convert regular expressions into DFA/NFA with algorithmic state optimization.	

Education

Bachelor of Information Technology and Computer Science Nile University, Giza Concentration: Media Informatics GPA: 3.69/4.0	2019 – 2023
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Certifications

KodeKloud: Docker for Beginners, Kubernetes for Beginners, Jenkins for Beginners

IBM: Data Science Specialization, Data Analysis Specialization

Languages

Arabic: Native | English: Professional Working Proficiency