

Abdelrahman Ahmed Hassan Atia

Egypt, Giza, 6 October

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Portfolio: abdelrahman730.github.io | Military Status: Completed

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, Express.js, PHP, Python, RESTful API Design, Microservices Architecture
DevOps & Infrastructure: Docker, Kubernetes, Jenkins, CI/CD Pipelines, Linux, Bash Scripting, Git
Databases: PostgreSQL, MySQL, Database Design, Query Optimization, Schema Architecture
Frontend: React.js, JavaScript (ES6+), HTML5, CSS3
Additional: TensorFlow Lite, Computer Vision, Algorithm Design, System Performance Optimization

Professional Experience

Teaching Assistant, Computer Science Department Oct 2025 – Present
German University in Cairo (GUC), Cairo

- 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 Oct 2020 – Feb 2021
Nile University, Giza

- Supported core programming courses and guided students through backend-focused software development projects.

Key Backend Projects

Praylytics: Islamic Prayer Analytics Dashboard Jan 2026

- Built full-stack web application with React frontend and Express.js backend for prayer tracking and analytics.
- Designed PostgreSQL database schema with complex relationships for users, prayers, journals, and achievements.
- Implemented gamification system with XP progression, streaks, and achievement unlocking via RESTful APIs.
- Integrated adhan.js for offline-first prayer time calculations with global geocoding support.
- Built interactive 3D globe visualization using react-globe.gl for worldwide user location display.

DevOps Web Deployment & Pipeline Orchestration Nov 2025

- 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

- 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.

ASSIST ME: Computer Vision Backend System June 2023

- 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.

Interactive Parse Tree Visualizer June 2023

- 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.

University Management System Backend Jan 2022

- Built full-featured academic portal backend with PHP, managing student registration, grading, and attendance.
- Designed relational database architecture with MySQL for handling complex academic data relationships.

Education

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

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