

Ahmed Osama Helmy

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| Cairo, Egypt

Summary

Backend-focused Software Engineer with production experience in **.NET**, **Node.js**, and **Azure**, building scalable services, cloud infrastructure, CI/CD pipelines, and AI/LLM integrations. Azure (AZ-104) and AWS certified.

Education

ITI (Information Technology Institute) – 9-Month Professional Training Program *Oct 2025 – Jun 2026*
Integrated SW Development & Architecture

Cairo University *Sep 2020 – Jun 2025*
B.Sc. Computer Engineering · CGPA: 85.5%

Experience

Software Engineer | **Raisa Energy** *Jul 2024 – Jun 2026 · Part-Time*

- **Cut infrastructure costs 80%** by migrating an over-provisioned financial service to a serverless Azure Container App (Docker + Nginx) with zero downtime; reduced environment drift across 3 environments by replacing manual resource management with Terraform IaC, versioning 10+ Azure resources.
- Reduced financial-document retrieval to a single endpoint by designing an Accounting Documents Integration in .NET with Azure Blob Storage, bridging a Snowflake data warehouse of **3.6M+ documents**.
- **Revoked all hardcoded SAS-token credentials** across 3 Blob Storage pipelines by migrating to Azure AD managed identity; added xUnit + Moq tests after a regression-undetected bug reached production.
- Shipped a generic comments system reused across **4+ entity types** and a unified OTP-based authentication mechanism in .NET, securing all auth flows and eliminating duplicated feature code.

Software Engineer | **Dell Technologies** *Dec 2024 – May 2026 · Part-Time*

- Delivered the Dell Summer Academy Portal – full-stack (React, Node.js, Firebase) serving **13K+ applicants**; removed N+1 Firestore patterns with batch operations, cutting API calls by >50%.
- Built a **Graph RAG** system over CPU/application telemetry for natural-language infrastructure queries; cut test-case authoring time for 5+ engineers with an AI test-generation tool spanning JIRA and Confluence.

Software Engineer Intern | **Geidea** *Oct 2025 – Jan 2026*

- **Unblocked independent deployment and testing** of a fintech payment flow by refactoring the Payment Gateway .NET microservice (33+ config models) to a Unit of Work + Repository pattern and decoupling the Configuration Service.

Software Engineer Intern | **Siemens EDA** *Oct 2023 – Feb 2024*

- **Eradicated manual test configuration** across 3+ engineering teams (5G, Ethernet) by building a generic configuration generator (React.js, Node.js, MongoDB, C++, SQLite) that enabled parallel test execution.

Projects

PersonAd – AI Personalisation Tool (Graduation Project · Mentored by Microsoft)
FastAPI · Azure Cosmos DB · LangChain · Python · Social Media Scraping *2024 – 2025*
[GitHub]

- **Designed and built the FastAPI backend** and Azure Cosmos DB data layer powering personalised ad recommendations from scraped social-media profiles, with LangChain pipelines for user-persona modelling.

Men's Shop – Fashion E-Commerce Backend (Freelance)

.NET · ASP.NET Core · EF Core · PostgreSQL · Supabase
[Live API / Swagger] [Play Store]

Nov 2025 – Mar 2026

- Delivered a **production** freelance backend serving a published Google Play app – recursive nested categories, product catalog, cart, order management, and JWT auth, built on Clean Architecture with Supabase PostgreSQL.

Technical Skills

Languages: C# | TypeScript | C++ | Python

Backend: .NET/ASP.NET Core | Node.js | Clean Architecture | Microservices | REST APIs

Databases: PostgreSQL | SQL Server | MongoDB | Firebase | Supabase

DevOps & Cloud: Azure Cloud | Azure DevOps | Terraform | Docker | Nginx

AI & LLM: LangChain | RAG Pipelines | Graph RAG | LLM Integration | AI Agents

Testing: xUnit | Moq | Jest | JMeter

Certifications & Achievements

- Microsoft Azure Administrator (AZ-104), 2025
- AWS Cloud Practitioner, 2024
- PwC JSYC Azure Cloud Track (May 2025)
- Siemens Software Academy 2024
- ACPC Finalist 2024
- ECPC Finalist 2023
- ODC Champions Finalist (Ranked 12th)
- IELTS Band 8