

AHMED MOHAMED AHMED AMIN

Backend Software Engineer · .NET | Azure | Distributed Systems

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PROFESSIONAL SUMMARY

Backend engineer behind a government correspondence and workflow platform now adopted as the unified correspondence system across Kuwait — ~7,000 users and thousands of correspondences monthly on .NET and Azure. Sole owner of its integration and identity surface: Microsoft Entra ID, Microsoft Graph, DocuSign eSignature, government-to-government exchange, Managed Identity and RBAC. Designed the platform's two-region disaster recovery and its event-driven messaging on Azure Service Bus with MassTransit. Reviews teammates' code and mentors a junior engineer in a five-person team; 2.5 years in the role.

TECHNICAL SKILLS

Languages: C#, T-SQL, JavaScript / TypeScript

Backend & Frameworks: .NET, ASP.NET Core, FastEndpoints, Entity Framework Core, REST APIs, MediatR, Hangfire, SignalR, MassTransit

Databases: Microsoft SQL Server (T-SQL, indexing, query tuning), PostgreSQL, Redis

Cloud — Azure: App Service, Container Apps, Azure SQL, Blob Storage, Key Vault, Service Bus, Azure SignalR Service, Application Insights, Container Registry, VNets & Private Endpoints, Azure Firewall, Bicep (IaC)

Messaging & Distributed Systems: Azure Service Bus, MassTransit, RabbitMQ, Redis, event-driven architecture, message consumers, background workers, retries & idempotency, distributed caching, Geo-DR pairing

Security & Identity: Microsoft Entra ID (Azure AD), Azure Managed Identity, RBAC, OAuth 2.0 / OpenID Connect / JWT, Microsoft Graph API, DocuSign eSignature, HMAC webhook verification, Azure Key Vault, SAS tokens

DevOps & Observability: Jenkins, GitHub Actions, Azure DevOps, Docker, Azure CLI & PowerShell, multi-region deployment pipelines, Application Insights, Kusto (KQL), Serilog, OpenTelemetry

Architecture & Practices: Clean Architecture (Ardalis), Domain-Driven Design, CQRS, Repository pattern, microservices, unit testing with xUnit, code review, refactoring, BC/DR design

PROFESSIONAL EXPERIENCE

Backend Software Engineer — NexGen Solutions

Remote (Kuwait) | Jan 2024 – Present

Building Azure-hosted enterprise systems for government clients in Kuwait.

Correspondence Management System (CMS) — built on .NET, Clean Architecture and FastEndpoints — adopted as the unified correspondence system across Kuwait; ~7,000 users, thousands of correspondences monthly

- Designed the platform's **two-region disaster recovery architecture** (UAE North active, West Europe passive) — **Azure SQL auto-failover groups**, **Blob Storage object replication**, **Service Bus Geo-DR pairing**, per-region **SignalR**, **Bicep**-provisioned networking, and a **Jenkins** pipeline deploying to both regions in parallel.
- Made message publishing transactional with an **Entity Framework outbox** so events reach **Azure Service Bus** only when the database commits, and abstracted the transport so the same **MassTransit** consumers run on Service Bus in the cloud or **RabbitMQ** on-premise; **Hangfire** for background jobs, **Azure SignalR** for real-time notifications.
- Built **JWT session revocation** — SQL as system of record, **Redis** holding per-token keys at token TTL for constant-time validation, per-user sets for multi-device sign-out, system-wide revocation, and lock-guarded rehydration after a Redis cold start.
- Removed stored credentials from configuration by moving service-to-service authentication onto **Azure Managed Identity with RBAC** — App Services reach **Key Vault**, **Azure SQL**, **Blob Storage** and **Service Bus** with no connection strings.
- Replaced generic "login failed" messages with a precise cause for ~7,000 users — account-lock diagnostics over **Microsoft Entra ID** and **Microsoft Graph** sign-in logs covering smart logout, admin disable, password expiry, risk-based blocking and Conditional Access.
- Integrated **DocuSign eSignature** (**JWT Grant** service account, code-positioned signing tabs, **Connect webhooks with HMAC signature verification**), plus **G2G XML** government correspondence exchange and **Microsoft Graph / OneDrive** document access.
- Proposed and delivered a **configuration-driven registry model** — new registries are onboarded through configuration instead of a code change and redeployment.
- Built the **delegation and entrustment authorization model** resolving effective permissions from personal delegations and job-title assignments — who may act on a correspondence on another employee's behalf.
- Traced a failed deployment to a workload subnet missing its route table, which cut **Azure Container Apps** off from DNS behind **Azure Firewall**, and eliminated intermittent **Blob Storage SAS** signature failures — investigated with **Application Insights**, **Serilog** and **Kusto (KQL)**.
- Ship through **Jenkins** and **Docker** to **Azure Container Registry**; review teammates' pull requests, mentor a junior engineer and gather requirements directly with government stakeholders in a five-engineer team.

E-Tendering System — government procurement and tender management

- Developed tender management and procurement workflows on **ASP.NET Core** with **Clean Architecture**, **DDD** and **CQRS (MediatR)**, backed by **SQL Server** and **PostgreSQL**.
- Implemented real-time stakeholder notifications with **SignalR** and scheduled processing with **Hangfire**, keeping bidders and reviewers in sync through the tender lifecycle.

- Built the document attachment module with version history on **Azure Blob Storage**; containerized with **Docker** and delivered through **Jenkins** pipelines to **Azure App Service**.

ADDITIONAL PROJECTS

- **EduNex — education management platform** (ASP.NET Core Web API, Angular, PostgreSQL): built the backend for course, grading and enrollment management, with **PayMob** payment integration.
- **Awn-Backend** (personal, .NET / GitHub Actions): rebuilt the CI workflow — secrets-based configuration, pinned action versions, database migration guard and zero-downtime service reload.

EDUCATION & TRAINING

B.Sc. Computer Science & Information Technology — Port Said University 2019 – 2023
GPA 3.44 / 5 (84.29%), Grade B+ · Graduation project: A (95%)

Full Stack Web Development using .NET — Information Technology Institute (ITI) Sep – Dec 2023
4-month intensive professional training program.

ACHIEVEMENTS & ACTIVITIES

- Founded and led the **ICPC Port Said University community**, growing it to 1,000+ members and establishing it as a recognized competitive-programming hub.
- Coached and guided teams to the **ACPC (Arab Collegiate Programming Championship)**, reaching a top-20 rank in Egypt.

ADDITIONAL INFORMATION

Languages: Arabic (native), English (professional working proficiency)
Nationality / Status: Egyptian · Military status: Exempted · Open to relocation (Kuwait, UAE, Saudi Arabia) and remote roles