

Hagag Abdelbaset Mohamed

FULL STACK ENGINEER · .NET CORE · LARAVEL · FLUTTER

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PROFESSIONAL SUMMARY

Full Stack Software Engineer with **4+ years** architecting and shipping enterprise systems across government, EdTech, PropTech, FinTech and B2B SaaS. Specialist in **ASP.NET Core**, **SQL Server** and **Clean Architecture**, with production depth in Laravel and Flutter. **Leads development teams and code review**, working directly with clients from requirements through delivery in Agile cycles. Has built multi-tenant SaaS, real-time systems on SignalR and WebRTC, and background job pipelines. Impact: **30% faster search queries** (SQL Server indexing and partitioning), **25% less facility downtime** (maintenance automation) and **20% faster delivery** (layered architecture). Arabic-native, building Arabic-first, RTL-correct products for the Saudi market.

TECHNICAL SKILLS

Programming: C#, TypeScript, JavaScript, PHP, Dart, Python, Kotlin, C++, SQL / T-SQL
Backend: ASP.NET Core (8/9/10), ASP.NET MVC, Web API, EF Core, LINQ, Dapper, Laravel 9–12, Eloquent, Filament, Livewire, Django, Odoo
Frontend: React, Next.js, Angular 2+, Vue.js, Blazor, Razor, Tailwind CSS, Vite
Mobile: Flutter (Provider, Riverpod), Dart, Kotlin, Jetpack Compose, Android
Databases: SQL Server (T-SQL, stored procedures, indexing, partitioning), MySQL, PostgreSQL, MongoDB, SQLite, Redis
Architecture: Clean Architecture, Domain-Driven Design, CQRS, SOLID, Design Patterns, Microservices, Multi-tenant SaaS, RBAC
Real-time: SignalR, LiveKit (WebRTC), RabbitMQ, Hangfire, Quartz, BackgroundService, Pusher, Firebase FCM
DevOps: Docker, Docker Compose, CI/CD pipelines, nginx, Linux/Ubuntu, Azure (fundamentals), AWS (fundamentals)
Security & APIs: JWT, OAuth 2.0, Microsoft Identity, Identity Server, Sanctum, Swagger, MediatR, AutoMapper, Git
Domains: CMMS/FMS, ERP, legal case management, school transport, digital signage, ZATCA e-invoicing

PROFESSIONAL EXPERIENCE

Software Engineer Nov 2025 – Present
Afaq Tech · Riyadh, Saudi Arabia

- Delivered **8+ enterprise products** — facilities, legal, asset maintenance, school transport, signage, e-learning, government booking — as .NET backend architect and Laravel/Flutter full-stack owner.
- Led the development team and code-review process**, setting architecture and testing standards, and working directly with government and enterprise clients from requirements gathering through delivery in Agile cycles.
- Designed a **multi-tenant SaaS architecture** with per-tenant data isolation, tenant-scoped filtering and per-tenant notification configuration, letting one deployment serve multiple client organisations securely.
- Built an asynchronous email pipeline on **BackgroundService** with a bounded **Channel<EmailMessage>** queue (500-item capacity) over the Resend API, removing SMTP latency from the request path.
- Engineered a configurable maintenance planning engine auto-generating work orders from frequency rules and approved plans, with SLA tracking, reminders and overdue escalation — cutting facility downtime **25%**.
- Deployed granular **role-based access control** with per-module permission matrices across 15+ roles.
- Improved end-to-end response times **30%** across the FMS platform through query optimisation, strategic indexing and a refactor to Clean Architecture across three project layers.

Stack: C# · ASP.NET Core 8/9/10 · EF Core · SQL Server · PostgreSQL · SignalR · Hangfire · AutoMapper · Laravel 12 · Filament · Flutter · Kotlin · Jetpack Compose · React · Next.js · LiveKit · Docker · nginx · CI/CD

Software Engineer May 2025 – Oct 2025
SpeedProgramming · Jeddah, Saudi Arabia

- Designed and built a full-scale **ERP system** for equipment maintenance, periodic inspections and operational reporting.
- Automated maintenance workflows (oil, filters, tyres), cutting equipment downtime **25%** and improving fleet availability.
- Developed a **General Ledger** with a complete chart of accounts, multi-currency transactions and financial reconciliation.
- Built sales and purchase modules processing **1,000+ monthly transactions** with automated invoicing and inventory sync.

Stack: C# · ASP.NET Core · EF Core · SQL Server · Angular · REST APIs · Microsoft Identity · Microservices · CI/CD

Software Engineer

May 2024 – Feb 2025

4rubaiyat · Riyadh, Saudi Arabia

- Developed **AlMuhaisni**, a property management platform with interactive maps, dynamic dashboards and listings.
- Designed RESTful APIs for property management, enquiry handling, image galleries and user interaction tracking.
- Cut property-search response time **30%** through **SQL Server indexing and table partitioning**.
- Increased engagement with real-time live property updates, instant notifications and interactive search.

Stack: C# · .NET Core · EF Core · Dapper · Web APIs · SQL Server · JavaScript · TypeScript

Software Engineer

Oct 2021 – Oct 2023

Information Systems, Egyptian Armed Forces · Cairo, Egypt

- Designed and developed secure backend systems to enterprise-grade security standards in a high-assurance environment.
- Integrated **Microsoft Identity** for authentication, authorisation and role-based access control across multiple applications.
- Improved development velocity **20%** by introducing AutoMapper and Dependency Injection for a testable architecture.
- Built an automated SMTP notification system for workflow updates, approval requests and system alerts.

Stack: C# · ASP.NET Core MVC · Web API · EF Core · Dapper · SQL Server · Hangfire · Identity Server · AutoMapper

SELECTED PROJECTS

Afaq FMS — Facilities Management System

Live · fms.afaqtech.com.sa

Multi-tenant facility maintenance ERP with **20+ business modules** (tickets, projects, BOQ, extracts, assets, preventive plans, permits), a consultant → contractor → ministry workflow and a Flutter app. **697+ tickets closed across 99 departments**.

ASP.NET Core 8 · EF Core · SQL Server · SignalR · Hangfire · Razor/MVC · Flutter · Docker · nginx

Ministry Meeting Rooms — Government Booking System

Live · Saudi ministry

Hall booking for a Saudi ministry on Clean Architecture + CQRS: a week grid of free slots per hall, per-hall approvers, recurring series, approval emails that open as Outlook meeting requests, Exchange (EWS) sync, one-time-code sign-in and LDAP invitee lookup. **Temporal-table history, 4 xUnit test projects**.

ASP.NET Core 8 MVC · EF Core · SQL Server · MediatR · Exchange EWS · iCalendar · LDAP · xUnit

Mutaallim (EduPlatform) — Learning Platform with AI Tutor

Live · learning.afaqtech.com.sa

Teacher, student and parent portals. Students read lessons with explanations and word meanings, have pages read aloud or translated, and ask an **AI tutor that answers only from their book**, citing the page; teachers run groups, exams and **LiveKit** live classes. The AI runs on-server: local LLM, Piper TTS, OPUS-MT.

.NET 8 · React · SQL Server · LiveKit · Ollama (local LLM) · Piper TTS · Docker

Ensraf — School Dismissal, Attendance & Transport

Live · 7 schools

A Laravel/Filament admin and **three Flutter apps** on Google Play and the App Store: guardians call students from the gate and track buses live, drivers hand students off stop by stop, teachers release called students from the classroom. **47 domain entities**.

Laravel 12 · PHP 8.2 · Filament 3 · Livewire 3 · Sanctum · Flutter · Firebase FCM · Google Maps API · MySQL

Also delivered

- **MediaPlus** (live): digital-signage SaaS — .NET backend, Flutter display client and Kotlin/Jetpack Compose manager app.
- **FatoraScan**: ZATCA e-invoicing — validates QR payloads against the TLV specification, with Arabic/English OCR (.NET, React).
- **Afaq Legal** (live): law-office management — cases, session roll, appeal deadlines and judgments (ASP.NET Core 10, Flutter).
- **Afaq AMS** (live): preventive maintenance with an EAV property model and QR scan-to-report stickers (ASP.NET Core 9).
- **Aqari** (live): real-estate marketplace, web and Flutter app, with map search and real-time chat (Laravel 12, Pusher).
- **ErpGold** (in development): gold & jewelry ERP by weight, karat and pure weight (ASP.NET Core, Next.js 16).
- **Wadhakkir**: offline-first Quran memorization app with page-accurate mushaf rendering (Flutter, SQLite, .NET 9).
- **Internal tools**: MOSS and Follow-Up dashboards, Shahadat Itmam certificates, PowerScheduler, Clinic Management.

EDUCATION

Bachelor's Degree in Computer and Information Systems

2016 – 2020

Minia University · Minia, Egypt

LANGUAGES & PERSONAL

Arabic: Native | **English:** Professional working proficiency | **Nationality:** Egyptian | **Military status:** Completed