

Ahsan Mehmood

Full-Stack Engineer | API Development & System Integrations | C# & .NET | Angular | React

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SUMMARY

Full-Stack Software Engineer with 4+ years of experience in **API development and system integrations**: designing REST APIs and microservices (ASP.NET Core / .NET 8, Spring WebFlux, Azure Functions) and connecting CRM platforms (HubSpot) and other systems with external vendor and third-party services (payment gateways, SMS, SOAP and REST APIs, webhooks, browser automation) using resilient HTTP clients, retries and circuit breakers. Also builds the Angular, React and Vue.js frontends on top. Experienced in SQL Server, PostgreSQL, Redis, Azure, AWS, GCP, Docker and CI/CD, with a focus on reliability, performance, testing and maintainable architecture.

KEY HIGHLIGHTS

- API development**: REST APIs and microservices with ASP.NET Core (.NET 8), .NET 6, Spring WebFlux and Azure Functions, secured with JWT/OAuth 2.0 and documented with Swagger/OpenAPI.
- CRM & system integrations**: connected CRM platforms (HubSpot) and business systems to external vendor and third-party systems over REST, SOAP and webhooks (Stripe, PayPal, Twilio, external platforms via Puppeteer Sharp and HttpClient), synchronizing data into SQL Server.
- Resilient integration design**: Polly retry and circuit-breaker policies, Hangfire scheduled sync jobs and Azure Functions for asynchronous processing.
- Scale & performance**: automation platform processing **50K+ customer requests monthly**; evaluation cut from **8s to <800ms** and dashboards from **12s to <2s**.
- Full-stack & cloud**: Angular, React and Vue.js frontends; Azure (AKS, Functions, DevOps), AWS and GCP with Docker, Helm and CI/CD.

EXPERIENCE

Enigma Software Solution, Islamabad — Full-Stack Engineer (.NET & Angular)	Nov 2025 – Jul 2026
<ul style="list-style-type: none">Built scalable REST APIs with ASP.NET Core (.NET 8) and Azure Functions for asynchronous processing.Developed Angular 16+ applications with SignalR for real-time dashboards, notifications and tracking.Implemented SQL Server + Azure Cosmos DB architecture for transactional and low-latency workloads.Designed Azure DevOps CI/CD pipelines with Docker, xUnit/Moq and AKS deployments; deployed on Azure VMs and AKS using Helm and health probes.Performed load and performance testing using Azure Load Testing and JMeter.	
MPN, Islamabad — Full-Stack Engineer (.NET & React)	Dec 2024 – Nov 2025
<ul style="list-style-type: none">Built a .NET 8 bonus automation platform processing 50K+ customer requests monthly, automating eligibility and payout workflows.Developed customer and admin web applications with RBAC, audit logs, reporting and SignalR real-time updates.Developed configurable business rules with C#, NRules and Expression Trees to validate identity, KYC, deposits and withdrawals.Vendor & third-party system integrations: built automated integrations with external vendor systems using Puppeteer Sharp, HttpClient and Polly (retry/resilience), synchronizing data with SQL Server.CRM & vendor integrations: synchronized contacts and deals with HubSpot through its REST API, received webhook events, and consumed vendor SOAP/WSDL services from .NET.Optimized SQL Server queries and Redis caching, reducing bonus evaluation time from 8s to <800ms.Implemented JWT/OAuth 2.0, TDD with xUnit/Moq, and CI/CD with GitHub Actions and Docker.	
Convsync, Lahore — Full-Stack Engineer (.NET, Spring Boot & React)	Feb 2024 – Dec 2024
<ul style="list-style-type: none">Modernized a legacy application into Spring Boot and .NET Core microservices, improving maintainability and deployment efficiency.Developed REST APIs with Spring WebFlux and .NET 6, and built React 18 / TypeScript / Tailwind CSS dashboards (plus Angular integrations).Migrated reporting workloads to PostgreSQL and Redis, reducing dashboard load time from 12s to <2s.Webhooks & integrations: built webhook receivers and publishers with retry handling to connect the microservices with external systems and CRM data (HubSpot).Implemented Clean Architecture, JWT/OAuth 2.0 and RBAC; established GitHub Actions CI/CD with JUnit/xUnit testing.	

Part-time / Project-based

- Developed backend services with **.NET Core, Entity Framework Core and Dapper** for **multiple client projects**.
- Built REST APIs using **MediatR**, FluentValidation and AutoMapper in a **CQRS** architecture.
- Implemented **Hangfire** for scheduled jobs, bulk processing, exports and automated reports.
- **Payment & messaging integrations**: integrated **Stripe, PayPal and Twilio** with Polly retry and circuit-breaker policies.
- Optimized SQL Server queries and stored procedures; deployed with **Docker** and **GitHub Actions**.

Inibuilds, London — Software Engineer (Real-time Game Backend)

Aug 2022 – Jan 2023

6-Month Contract

- Developed multiplayer game backend systems with **C#/.NET and Unigine Engine**; implemented **SignalR**/WebSocket telemetry and entity synchronization.
- Built C# automation and load-testing tools using the **Task Parallel Library**.
- Deployed on **AWS EC2** with Auto Scaling, ELB and CloudWatch; used **Redis** for session state, leaderboards and pub/sub; tested with **NUnit and Moq**.

PROJECTS

PayFlow Pro — Multi-tenant workforce platform: onboarding, contracts, payroll, attendance, live monitoring, leave approvals and messaging. *Angular, Node.js, PostgreSQL, Redis, WebSockets, Firebase, Google Cloud Run*.

Learning & Enrollment Platform — Course registration with payment-proof verification, student portal with live classes, and an AI study assistant with server-side LLM keys. *Angular, TypeScript, .NET 8, Firestore, Cloud Run*. [Live app](#)

AI PMS — Practice management system for dental and medical clinics. *.NET, C#, React*.

Task Management (Role-Based) — Full-stack task system with JWT auth, RBAC (Owner/Admin/Viewer), multi-organization support, audit logging and real-time progress. *NestJS, Angular, NgRx, TypeORM, Tailwind*. [GitHub](#)

InvoiceDesk — One C# core shared by a WinForms desktop app and a Blazor Server web app. *.NET 10, SQLite, xUnit*. [GitHub](#)

SimpleChat — Real-time chat app with a server that any client can join. *.NET, React*. [GitHub](#)

Suite Capacity — Vacation rental management website. *Next.js, React*. [Live](#)

NA Organic Store — E-commerce store with catalogue, discounts, cart and chat ordering. *React*. [GitHub](#)

ColorxChange — Upload images and videos and edit their colours. *Vue*. [GitHub](#)

Bonus Automation Platform (MPN) — Bonus eligibility and payouts; evaluation cut from 8s to <800ms. *.NET 8, NRules, Expression Trees, Puppeteer Sharp, Vue.js 3 + Pinia*.

Reporting Performance Overhaul (Convsync) — Dashboard load time cut from 12s to <2s. *PostgreSQL, Redis, .NET 6, Spring WebFlux, React 18*.

Real-time Multiplayer Game Backend (Inibuilds) — Backend for a Unigine game with live telemetry and auto-scaling. *C#/.NET, SignalR, WebSockets, Redis, AWS*.

Restaurant Demand Forecasting & Labor Optimization — Forecasts hourly demand per location from trailing 4-week averages and recommends server/host/kitchen staffing; idempotent ingestion API and operations dashboard. *TypeScript, Prisma 7, SQLite*. [GitHub](#)

AI-ISIS Face-Recognition Security — Auto-locks the PC when the owner's face is absent; intruder logging, blink authentication and gesture control. *Python, OpenCV*. [GitHub](#)

License Plate Detection — Extracts plates from CCTV/dashcam video with CLAHE, contour detection and OCR. *Python, OpenCV, Tesseract*. [GitHub](#)

OpenGL / GLSL Scenes — Shadow mapping, raymarching, terrain and 22K-particle scenes. *OpenGL 3.3, GLSL, Python*. [GitHub](#)

Systems Programming in C — Unix shell, CPU scheduling, Banker's algorithm and page-replacement simulators. *C*. [GitHub](#)

Games — Unity 3D character customization; Dodge 'Em arcade game. *Unity, C#, C++, SFML*. [GitHub](#)

SKILLS

Integrations	HubSpot (CRM), REST/HTTP APIs, SOAP/WSDL, Webhooks, API design, Swagger/OpenAPI, Stripe, PayPal, Twilio, Puppeteer Sharp, HttpClient, Polly (retry & circuit breaker), SignalR/WebSockets, Azure Functions
Backend	C#, .NET, ASP.NET Core, Web API, Entity Framework Core, Dapper, REST APIs, Node.js, NestJS, Java / Spring Boot
Frontend	Angular, React, Vue.js, Next.js, TypeScript, JavaScript, RxJS, NgRx, Pinia, SignalR, Tailwind CSS
Database	SQL Server, PostgreSQL, Redis, Cosmos DB, Firestore
Cloud & DevOps	Azure, AWS, GCP (Cloud Run), Docker, Kubernetes, Helm, GitHub Actions, Azure DevOps, CI/CD
Architecture	Microservices, Clean Architecture, CQRS, DDD, Repository Pattern, Background Services
Testing & Tools	xUnit, NUnit, Moq, FluentAssertions, JMeter, Postman, Swagger/OpenAPI, Git, Jira, Visual Studio, VS Code

EDUCATION

BS Computer Science — FAST NUCES, Islamabad