

Muhammad Bilal Tahir

Principal Software Engineer & AI Consultant

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PROFESSIONAL SUMMARY

Principal-level Software Engineer with 9+ years architecting and delivering enterprise-grade distributed systems in C#, ASP.NET Core, and .NET — available for full-time, contract, and consulting engagements. Deep expertise in AI/LLM integration (Azure AI Foundry, RAG pipelines, Qdrant) and legacy-to-microservices modernization, with a track record of taking systems from proof-of-concept to production across fintech, IoT, telecom, and healthcare. Brings both hands-on technical execution and the ability to work independently with distributed, async-first teams — bridging business requirements with technical delivery while mentoring engineering teams.

TECHNICAL SKILLS

Languages Frameworks

C#, TypeScript, JavaScript, SQL, HTML/CSS
ASP.NET Core, .NET Core, MVC, Web API, WinForms, Angular, React

AI / LLM

Azure AI Foundry, OpenAI, LLM Integration, Agentic Workflows, RAG Pipelines, Qdrant (Vector DB), Embeddings, Semantic Search, Intelligent Document Processing

Architecture

Microservices, RESTful & SOAP APIs, Event-Driven Design, Domain-Driven Design (DDD)

Databases

SQL Server, PostgreSQL, MySQL, MongoDB

Cloud & DevOps

AWS (EC2, RDS, S3), Azure, Docker, Kubernetes, CI/CD Pipelines, Git

Practices

Clean Architecture, OOP, Design Patterns, TDD, Agile/Scrum, Code Reviews, Mentoring

EXPERIENCE

Senior Software Engineer — AI & Enterprise Systems

March 2025 – Present

InvoZone, Lahore

- Architected and delivered agentic AI workflows using Azure AI Foundry for enterprise SQL automation and intelligent reporting, enabling natural-language querying over structured business data.
- Built RAG pipelines using Qdrant vector database — designed embedding strategies, retrieval pipelines, and LLM integration for production-grade semantic search and Q&A systems.
- Developed scalable ASP.NET Core microservices with RESTful APIs, containerized via Docker/Kubernetes and delivered through automated CI/CD pipelines.
- Mentored junior engineers, led code reviews, and established best practices for AI integration, performance, and maintainability across the team.

Senior Software Engineer — IoT & Platform Modernization

May 2022 – November 2024

u-blox, Lahore

- Led full modernization of a monolithic FOTA (Firmware Over-The-Air) IoT platform to microservices architecture, improving deployment frequency, scalability, and system reliability.
- Designed and implemented secure device-to-server communication using LWM2M protocols and RESTful APIs handling millions of IoT transactions on AWS (EC2, RDS, S3).
- Optimized PostgreSQL query performance to support high-throughput, high-availability production workloads at scale.
- Contributed to architectural decision-making, technical roadmaps, and cross-functional collaboration with global engineering teams.

Senior Software Developer — Enterprise Applications

August 2018 – April 2022

Wateen Telecom, Lahore

- Designed and developed enterprise web applications and REST API integrations using C#, ASP.NET, and SQL Server supporting large-scale telecom business operations.
- Delivered an end-to-end HR Recruitment Portal with automated applicant tracking, interview scheduling, and OAuth 2.0 / two-factor authentication from requirements through production.

- Built a multi-warehouse Inventory Management System with barcode scanning, stock alerts, and audit reporting.

Software Developer — Academic & Administrative Systems

November 2015 – August 2018

CASE University, Islamabad

- Developed MIS platforms for student enrollment, exam scheduling, financial management, and role-based access using ASP.NET, C#, and SQL Server.
- Built WinForms desktop applications for academic outcome tracking (PLOs/CLOs), attendance, and RDLC reporting.

KEY PROJECTS

Enterprise AI Agent Platform | *Azure AI Foundry, Qdrant, ASP.NET Core, C#, PostgreSQL*

Agentic workflow system for natural-language SQL querying, report management, and enterprise knowledge base Q&A; evolved from PoC to production.

Datahaul — Logistics Intelligence | *ASP.NET Core, Microservices, SAMSARA API, Docker, React*

Microservices BI platform integrating real-time IoT/ELD logistics APIs with custom analytics and operational dashboards.

NowApp — Fintech Platform | *ASP.NET Core, Angular, Plaid API, Identity Server, SQL Server*

Secure real-time financial management platform with Plaid API integration, predictive tracking, and Identity Server authorization.

FOTA IoT System | *ASP.NET Core, C#, PostgreSQL, LWM2M, Angular, AWS*

High-availability firmware update platform supporting millions of IoT device transactions; led monolith-to-microservices migration.

AI-Medical Platform | *ASP.NET Core, React, PostgreSQL, Jitsi*

Digital health platform with self-hosted secure video consultations, AI-assisted scheduling, and medical history dashboards.

EDUCATION

BS Software Engineering

2010 – 2014

International Islamic University, Islamabad