Usama Ansari

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Professional Summary

Senior Software Engineer with 12.3+ years of experience architecting and delivering hyperscale distributed systems on Microsoft Azure. Core architect of Azure Networking AI agent platform and mission-critical infrastructure health systems operating at global scale. Expertise in AI platform engineering, multi-region high-availability APIs, real-time telemetry systems, and secure cloud-native architectures. Recognized as the go-to technical leader for architecture decisions, security governance, and Azure infrastructure strategy.

Technical Skills

Programming Languages: C#, JavaScript, TypeScript, Python
Frameworks: .NET Core, ASP.NET Core, React, Angular, Node.js
Cloud and AI Platforms: Microsoft Azure, Azure AI Foundry, Azure OpenAI, Azure Container Apps, AKS, Service Fabric, Cosmos DB (Operational + Vector), Service Bus, Event Hub, Key Vault, Data Factory, Databricks
DevOps and Infrastructure: Docker, Kubernetes, Terraform, CI/CD, Git, EV2
Architecture Expertise: Distributed Systems, Microservices, AI Agents (MCP), Multi-Model Orchestration, Observability, High Availability, Multi-Region Deployment, Real-Time Streaming, Secure Platform Engineering

Professional Experience

Microsoft Hyderabad, India
Software Engineer 2 May 2016 – Present

Azure Networking – AI Agent Platform (Core Architect)

- Architected and built the Azure Networking AI Agent Platform on Microsoft Agent Framework with MCP support, memory management, multi-model orchestration (GPT-5.2, GPT-mini), evaluation pipelines, and enterprise-grade security controls.
- Designed extensible cloud-native architecture using Azure AI Foundry, Azure Container Apps, and Cosmos DB (operational and vector storage).
- Led platform-level decisions for model orchestration, persistence strategy, observability, and secure multi-service integration.
- Engineered a streamlined local developer experience using Docker Desktop and scripted container orchestration, enabling full-stack local execution of services.
- Reduced onboarding friction and enabled network engineers with limited coding background to build and deploy AI agents efficiently.
- Achieved early platform adoption with 10+ production agents onboarded, 52 unique active users, 16K–20K API requests per month, and approximately 712 million tokens processed monthly across multiple AI models.

Azure Networking – Device Health API Platform

- Designed and scaled a multi-region, highly available Device Health API platform processing approximately 150 million requests per day.
- Achieved 99.99%–99.999% reliability through resilient architecture, redundancy, proactive monitoring, and failure isolation.
- Supported infrastructure health monitoring across more than 3 million Azure nodes globally.
- Enabled onboarding of multiple internal services onto a unified, reliable infrastructure health platform.

Azure Networking – Physical Networking DRI Tooling

- Designed and implemented a schema-driven dynamic portal for Net Assist workflows used in physical networking incident management.

- Introduced metadata-based UI generation with built-in client-side validation, eliminating the need for custom UI development per workflow.
- Reduced development effort by up to one week per workflow and significantly improved onboarding efficiency.
- Integrated seamlessly with existing backend workflow engines while standardizing developer experience across teams.

Security and Compliance Leadership (S360 SPOC)

- Served as Single Point of Contact (SPOC) for security and compliance across Device Health services.
- Owned and managed all S360 security incidents and compliance items related to AI Agent Platform and Device Health API services.
- Ensured secure configurations, dependency governance, vulnerability remediation, and adherence to internal security standards.
- Drove proactive security reviews, configuration validation, and best-practice enforcement across multi-service architecture.

Technical Leadership

- Recognized as the primary architecture and Azure subject-matter expert within the team.
- Drive design reviews, architectural validation, and system reliability decisions for new and existing services.
- Mentor developers and guide implementation of scalable, secure, and resilient cloud-native systems.

Capgemini Mumbai, India
Software Engineer Nov 2013 – Apr 2016

- Developed enterprise web applications for clients including Abbott and SCA using .NET, SQL Server, and Azure.
- Contributed across requirements analysis, development, testing, and production support.

Education

Bachelor of Science in Information Technology
Mumbai University July 2013