AKARSH K

AI .NET Engineering Lead | Enterprise Solution Architect

.NET 8 / Azure · AI-Assisted Engineering · React.js · Cloud Modernization

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PROFESSIONAL SUMMARY

AI-focused .NET engineering leader and enterprise solution architect with 15+ years delivering cloud-native platforms at Fortune 500 scale, including PwC, Charles Schwab, and Bank of America. Currently leads AI engineering delivery for PwC's AI-powered tax document platform while remaining hands-on with C#/.NET 8, Azure Functions, microservices, React.js, and CI/CD. Led financial platforms sustaining 99.95% uptime and 2M+ daily transactions; introduced AI-assisted engineering workflows that increased feature throughput by approximately 30%. Reduced .NET service cold-start latency by 40% and deployment footprint by 30%, combining architecture governance with direct coding, design reviews, and team mentoring.

CORE COMPETENCIES

AI/ML & Dev Productivity: GitHub Copilot · Azure OpenAI · LLM API Integration · Prompt Engineering · AI-Augmented Code Review · Automated Test Generation · AI-Augmented SDLC
Backend & .NET: C# · .NET 8 · .NET Core · ASP.NET Core · Web API · Azure Functions · gRPC · REST APIs · Native AOT
Cloud & Azure: AKS · Container Apps · App Services · Service Bus · Event Grid · Event Hub · API Management · Entra ID · Azure SQL · Cosmos DB
Architecture & Governance: Enterprise Solution Architecture · Microservices · Event-Driven Architecture · Cloud Modernization · Scalability/NFRs · ADRs · Roadmaps · SOLID · Guardrails
Frontend: React.js · Vue.js 3 · Angular 2–18 · TypeScript · Hooks · Context API · NgRx · Accessible UI · Frontend Architecture
Identity & Security: OAuth 2.0 · OpenID Connect · JWT · SAML · SSO · MFA · ADFS · Centralized IAM · SOC 2
Integration: RabbitMQ · Azure Service Bus · Event Grid · Event Hub · CQRS · Saga Pattern · Azure API Management
DevOps & Observability: Azure DevOps · GitHub Actions · Git · Docker · Kubernetes · Bicep/ARM · OpenTelemetry · Application Insights · Dynatrace · AppDynamics · Splunk
Databases: SQL Server · Azure SQL · Cosmos DB · MongoDB · Redis · Oracle · EF Core · LINQ · SSIS/SSRS
Testing & Process: xUnit · NUnit · Moq · TDD · Automated Testing · Code Reviews · Agile/Scrum · Engineering Leadership

PROFESSIONAL EXPERIENCE

AI Technical Engineer Lead | PwC

Dallas, TX · Feb 2026–Present

- Lead and mentor 8 engineers delivering an AI-powered tax document platform, guiding solution design, pair programming, CI/CD, cloud operations, and automation to improve team self-sufficiency and reduce rework.
- Own Azure DevOps and GitHub CI/CD across two production tax applications, automating build, test, and release workflows to sustain a reliable biweekly deployment cadence with fewer manual and off-hours release risks.
- Design and develop secured, microservice-based Azure Functions and REST APIs for tax document processing, using HTTP-triggered and event-driven patterns to decouple long-running workloads from the core platform.
- Manage Azure cloud infrastructure and production operations; use Dynatrace, AppDynamics, Application Insights, and Splunk dashboards to identify bottlenecks and accelerate root-cause analysis.
- Champion an organization-wide code-quality program through SME reviews, refactoring, automated NUnit testing, technical-debt reduction, and coaching on readability, complexity, and engineering standards.
- Build SQL Server and Cosmos DB data solutions with Entity Framework Core, stored procedures, indexing, and document metadata models optimized for high-throughput, low-latency processing.

Environment: C#/.NET 8, ASP.NET Core, Azure Functions, Azure DevOps, GitHub, Cursor, Claude, OAuth 2.0, Entra ID, gRPC, Application Insights, Splunk, SQL Server, Cosmos DB

Enterprise Solution Architect → Technical Lead | Charles Schwab *Southlake, TX · Jan 2025–Dec 2025*

- Owned solution architecture across 3 enterprise product domains; delivered target-state blueprints that reduced design debt by 35% in two quarters and unblocked 6 on-time production releases.
- Architected and coded C#/.NET 8 minimal APIs and React.js features supporting millions of users at 99.95% uptime; established frontend standards that cut React-related rework by 40%.
- Designed an ASP.NET Core, gRPC, and OpenTelemetry microservices mesh across 10+ services, improving mean time to diagnosis by 50%; processed 2M+ daily transactions through AKS, Azure Functions, Service Bus, and Event Grid.
- Modernized multistage Azure DevOps CI/CD, reducing deployment time by 60% and eliminating environment drift across 4 tiers; governed 12+ consumer APIs through Azure API Management, OAuth 2.0, and versioning.
- Optimized .NET 8 services with Native AOT, cutting cold-start latency by 40% and deployment footprint by 30%; enforced 85%+ xUnit/Moq coverage and structured code reviews.
- Rolled out GitHub Copilot and Azure OpenAI tooling for code generation, refactoring, and test scaffolding, lifting feature throughput by approximately 30%; presented roadmaps that secured buy-in for 3 modernization initiatives.

Lead Full-Stack Developer | Bank of America *Plano, TX · Apr 2023–Dec 2024*

- Architected .NET Core microservices on Azure supporting 5M+ daily banking transactions at 99.9% availability with zero P1 incidents over 20 months.
- Delivered React.js modules and frontend governance; improved render performance by 35% through memoization and lazy loading while leading a 6-engineer .NET squad.
- Compressed releases from biweekly to weekly and cut post-deployment hotfixes by 55% through Azure DevOps CI/CD; containerized 14 services for independent scaling and zero-downtime rolling updates.
- Implemented Entra ID, OpenID Connect, OAuth 2.0, SSO, and MFA across 10,000+ users with zero identity-breach incidents after launch.
- Built Azure Functions processing 500K+ asynchronous events daily via Service Bus at sub-second latency; introduced GitHub Copilot and Azure OpenAI utilities that cut routine coding effort by 35% and raised test coverage above 85%.

Full-Stack Developer | Equifax *St. Louis, MO · Aug 2022–Mar 2023*

- Engineered .NET Core and Angular microservices processing 3M+ consumer records with 99.8% data integrity; built EF Core repositories over Azure SQL/SQL Server.
- Designed Event Grid schemas across 8 distributed services, reducing inter-service latency by 40%; created Azure Functions handling 200K+ background jobs daily through Service Bus and Storage Queues.
- Secured ASP.NET Core APIs with OAuth 2.0, JWT, and role/scope authorization for SOC 2 compliance; automated SSIS and Cognitive Search workflows to remove 70% of manual ETL processing.
- Used GitHub Copilot and AI-assisted code review to reduce pull-request cycle time by 25%; modernized legacy UI into reusable React.js and Vue.js components.

Lead / Full-Stack Developer | Charles Schwab *Raleigh, NC · Jan 2022–Aug 2022*

- Led REST API and microservices delivery with NestJS and .NET Core, integrating Event Hub and Event Grid for real-time financial data pipelines.
- Achieved 100% automated deployment coverage for containerized services; governed 5+ APIs through Azure API Management and reduced unauthorized access attempts by 65%.
- Optimized MongoDB aggregation and Docker/Kubernetes workloads for a 50% throughput gain; owned API design, coding standards, and merge gates across a distributed team.
- Piloted GitHub Copilot for NestJS and .NET Core scaffolding, establishing an AI-assisted engineering workflow later scaled across the organization.

EARLIER EXPERIENCE

Lead Developer | United States Postal Service (USPS) — Raleigh, NC · Jan 2021–Jan 2022 — .NET Core APIs, React/Angular, RabbitMQ, Docker, SQL Server, and Azure DevOps for nationwide mail-tracking operations.

Team Lead / Developer | Verizon / Matilda Inc. — Richardson, TX · Jan 2018–Dec 2020 — Led a 12-person team delivering Azure microservices, APIs, RabbitMQ integration, and Angular/Vue.js applications.

Senior Developer | State of Texas General Land Office — Austin, TX · May 2017–Dec 2017 — Designed and delivered ASP.NET, Entity Framework, SQL Server, web, and mobile applications in a TDD/Agile environment.

Senior Lead / Developer | Charles Schwab — Austin, TX · Jun 2016–Apr 2017 — Led ASP.NET MVC, JavaScript, SQL Server, Entity Framework, testing, and Agile delivery for financial applications.

Team Lead / Developer | General Motors — Austin, TX · May 2015–Jun 2016 — Built reusable AngularJS components and C#/WCF services with SQL Server, Entity Framework, and automated testing.

Senior Developer | Security Benefits Group — Topeka, KS · Sep 2014–Apr 2015 — Designed C#, ASP.NET MVC, WPF/MVVM, Entity Framework, multithreaded, and SQL Server solutions.

.NET Developer | State of Nevada — Reno, NV · Apr 2014–Sep 2014 — Enhanced ASP.NET applications, web services, Oracle/SQL Server data access, UI, reporting, and production support.

Team Lead / Developer | State of Missouri — Jefferson City, MO · Jan 2010–Mar 2014 — Delivered C#/ASP.NET MVC applications with Entity Framework, SQL Server, responsive UI, testing, and Agile/TFS practices.

EDUCATION & CERTIFICATION

Master's in Electronics & Computer Science · Illinois, USA | **Bachelor's in Electrical & Electronics Engineering** · JNTU, India

Microsoft Certified · .NET Framework – Application Development