

SUMAN HALDER

Solution Architect | Cloud-Native, .NET, Azure & Agentic AI

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PROFILE SUMMARY

Solution Architect with 14.5+ years designing and delivering cloud-native, AI-augmented platforms for enterprise financial services. Helps organizations break free of technical debt and delivery bottlenecks by redesigning their SDLC around agentic automation and Model Context Protocol (MCP)—without compromising zero-downtime, compliance-grade execution. Track record: sole technical solution owner for a \$150M/year banking platform, architect of India's national-scale power transmission infrastructure, and early adopter of agentic engineering practices that collapsed sprint cycles by up to 90%.

CORE COMPETENCIES

- **Solution Architecture:** End-to-End Solution Design, System Design, Requirements-to-Architecture Translation, Non-Functional Requirements (NFR) Definition, Technical Proposal & RFP Response, Client Workshops & Stakeholder Alignment, Architecture Governance, Agile & Scrum Delivery.
- **Enterprise Governance:** Solution, Enterprise & Application Architecture, Alignment of Business & IT Strategy, Technical Governance, Risk Mitigation, Vendor & Build-vs-Buy Evaluation, Regulatory Compliance (Banking & Financial Services), Client Onboarding.
- **Architecture Styles:** Cloud-Native, Microservices, Event-Driven Architecture, Domain-Driven Design (DDD), Clean Architecture, SAGA Pattern, Distributed Systems, API-First Design (REST, gRPC), High Availability, Disaster Recovery, Scalability & Fault Tolerance, Security & Compliance by Design (OAuth 2.0, OpenID Connect, JWT, RBAC, Zero Trust).
- **AI & Agentic Systems:** Agentic AI Frameworks, Multi-Agent Orchestration, Retrieval-Augmented Generation (RAG), Model Context Protocol (MCP), Large Language Model (LLM) Integration, Prompt Engineering, Embeddings & Semantic Search, Generative AI Integration, AI Governance & Guardrails, Vector Databases.
- **Cloud & DevOps:** Microsoft Azure Ecosystem, Microsoft Foundry, Advanced CI/CD Modernization, DevSecOps, Docker & Containerization, Kubernetes Orchestration, Infrastructure as Code (IaC), API Gateway, Observability & Monitoring, Cloud Migration Strategy.
- **Data & Messaging:** High-Throughput Architectures, Data Modelling, MS SQL Server, Oracle, NoSQL (Cassandra), Distributed Caching (Redis), Event Streaming (Apache Kafka), Message-Based Integration, Performance Optimization.

TECH MATRIX

- **AI & Agentic Tools:** Agentic AI, RAG, Model Context Protocol (MCP), LLMs, Prompt Engineering, Microsoft Foundry, Azure OpenAI, OpenAI GPTs, Cursor, Claude Code, GitHub Copilot, Computer Vision, Machine Learning.

- **Frameworks & Languages:** C#, .NET Core, ASP.NET Core, Web API, REST, gRPC, Entity Framework, LINQ, React, Angular, TypeScript, Advanced JavaScript, HTML5/CSS3.
- **Cloud & Tools:** Microsoft Azure, Azure DevOps, Azure Functions, Azure SQL, Azure Service Bus, Event Grid, API Management, AKS, CI/CD Pipelines, Docker, Kubernetes, Application Insights, Git, GitHub, Jira, SSIS/SSRS.
- **Databases:** MS SQL Server, T-SQL, Oracle, Vector DBs, NoSQL, Cassandra, Redis, Apache Kafka.

PROFESSIONAL EXPERIENCE

PwC India | Aug 2021 – Present

Solution Architect / Technical Architect

Project 1: U.S. Banking Enterprise Financial Platform (Sep 2024 – Present)

- **Architectural Strategy:** Spearhead enterprise architecture and technical roadmaps across React, .NET Core, integration layers, and Azure cloud infrastructure for a \$150M/year platform serving top-tier U.S. banking institutions.
- **Solution Design & Client Engagement:** Led solutioning workshops with client technical stakeholders to translate business requirements into target-state architecture, producing technical proposals that directly informed platform investment decisions.
- **DevOps Modernization:** Engineered and executed a modernized CI/CD strategy on Azure DevOps, slashing deployment and environment release effort by 90%.
- **Agentic AI Innovation:** Architected an MCP-based automation framework across the SDLC, compressing sprint cycles from 2–4 weeks to a single week, resulting in 80–90% faster feature delivery.
- **Architectural Trade-off Ownership:** Adopted event-driven SAGA-based choreography over distributed two-phase commit for cross-service transactions, improving service autonomy and deployment independence by 3x.
- **Knowledge Automation:** Designed a RAG-based enterprise knowledge assistant that reduced business-team dependency on core application support teams by 70–80%.
- **Build-vs-Buy Governance:** Evaluated commercial RAG/agent-orchestration platforms against an in-house MCP-based framework; chose to build for tighter data-governance control and vendor independence.
- **Business Growth:** Led the technical onboarding, provisioning, and integration for major global banking clients, directly enabling \$50M/year in new business revenue.
- **Leadership & Governance:** Built, scaled, and mentored a 25+ member cross-functional team (Architecture, Delivery, QA) with dual accountability as Track and Project Lead across onshore/offshore Agile/Scrum delivery models.

- **Technology Strategy Influence:** Authored the platform's cloud-native target-state architecture and 3-year technical roadmap, aligning a 25+ member cross-functional organization around a shared modernization strategy.

Project 2: National Open Access Registry (NOAR), Government of India (Aug 2021 – Aug 2024)

System Architect / Development Manager

- **National-Scale Delivery:** Directed the architectural design and delivery of India's national-scale power transmission automation platform utilizing C#, .NET Core, ASP.NET Core, Web API, React, Angular, Oracle, Cassandra, Redis, Docker, and Kubernetes engineered for high availability and horizontal scalability.
- **High-Performance Infrastructure:** Engineered system optimizations that cut transaction processing time by ~90%, successfully supporting over 150,000 national transactions.
- **Security & Compliance:** Championed strict security governance, clearing multi-vendor Vulnerability Assessment and Penetration Testing (VAPT) with official sign-off from GRID-India.
- **Recognition:** Honoured with the prestigious *STAR&R Award* for outstanding architectural contribution to the NOAR national program.

Cognizant Technology Solutions | Jan 2012 – Jul 2021

Technical Lead

Onsite Assignment: Comerica Bank (Michigan, USA) — Onsite SME & Team Lead

- **Mission-Critical Support:** Served as the dedicated onshore SME for Core HR, Finance, and Credit & Risk applications; directed a team of 15+ engineering resources architecting resilient solutions for high-value financial transactions.
- **Computer-Vision Automation:** Architected and deployed a computer-vision-based property categorization solution for a global UK-based real-estate platform, reducing manual approval workloads by 70% across 3 cross-functional teams.
- **AI Initiative Leadership:** Conceptualized and delivered an AI-driven vehicle-recognition parking framework, capturing the Leader Position in the organization-wide tech hackathon.
- **Legacy Automation:** Managed multi-million dollar module deliveries across HR, Legal, and Insurance platforms for enterprise clients like MetLife and The Hartford, driving automations that systematically phased out manual processing.
- **Accolades:** Recipient of the *Award of Excellence*, *Service Delivery Prodigy*, and *Empowered Awards* for exceptional client satisfaction and delivery performance.

EDUCATION & CERTIFICATIONS

- **B.Tech in Computer Science & Engineering** | West Bengal University of Technology, Kolkata (2007–2011) – *First Class with Distinction (83.4%)*
- **Microsoft Certifications:**
 - [Agentic AI Business Solutions Architect](#)

- [Azure AI Apps and Agents Developer Associate](#)
- [Azure Solutions Architect Expert](#)
- [Azure Developer Associate](#)
- [Azure Administrator Associate](#)
- **Professional Coursework:** Advanced Software Architecture Patterns, SAGA & Distributed Systems, Enterprise Cloud Computing Fundamentals, General Insurance Domain Principles.
- **Publications:** Author of “[*Mobility Aware Routing Protocol in Ad-Hoc Network*](#),” CS & IT Conference Proceedings, 2012.