

27+ YEARS
Technology | BFSI | Architecture | AI

RAGHUBIR BOSE

CHIEF ARCHITECT - AGENTIC AI | BFSI CTO GROUP

Principal Enterprise AI Architect | Agent Factory | Trusted Autonomy | AI Governance | Engineering Transformation
Kolkata, India | +91 9830765199 | raghubir@gmail.com | linkedin.com/in/raghubirbose

VALUE PROPOSITION Architecture leadership for the next generation of regulated enterprises

Enterprise AI architecture leader with 27+ years of technology experience and deep BFSI specialization. Helps organizations move from AI experimentation to trusted, production-scale capability by connecting business intent, architecture guardrails, reusable platforms and engineering operating models. Chief Architect in the TCS BFSI CTO group, shaping Agentic AI strategy, reference architectures, Agent Factory patterns and governance for global banking, insurance and financial-services environments.

DE-RISK AI SCALE	ACCELERATE DELIVERY	BUILD TRUST	MODERNIZE ENGINEERING
Governed paths from pilot to production	Reusable Agent Factory and platform patterns	Security, evaluation, evidence and oversight	Architecture-led AI transformation

CURRENT MANDATE Tata Consultancy Services | Apr 2025-Present

Chief Architect - Agentic AI, BFSI CTO Group

- Own architecture direction for Agentic AI across BFSI, shaping target-state architecture, reference patterns, governance and industrialization.
- Architect Agent Factory and multi-agent ecosystems across orchestration, agent archetypes, RAG, MCP/tool integration, memory/context, evaluation and observability.
- Define trusted-autonomy patterns with identity and entitlements, PII protection, policy enforcement, human approval, evidence, auditability and guardrails.
- Translate emerging AI capabilities into composable, secure and production-grade offerings for regulated banking, insurance and financial-markets environments.
- Drive architecture-led engineering transformation across SDLC, DevOps, SRE, testing, Architecture-as-Code and engineering excellence.

ARCHITECTURE LEADERSHIP

ENTERPRISE ARCHITECTURE Target states | capability maps | modernization | standards	AGENTIC AI ARCHITECTURE Multi-agent systems | planning | memory | orchestration	AI PLATFORM ARCHITECTURE Agent Factory | RAG | MCP | tool gateways | model choice
TRUSTED AI ARCHITECTURE Security | guardrails | policy | evaluation | auditability	INTEGRATION & CLOUD APIs | events | core systems | AWS | Azure | GCP	ENGINEERING ARCHITECTURE AI-led SDLC | DevOps | SRE | QA | AgentOps | observability

HOW I CREATE FUTURE VALUE Outcomes for enterprises adopting AI at scale

Move AI into production Convert promising pilots into secure, observable and supportable enterprise capabilities.	Scale through reusable platforms Reduce reinvention with Agent Factory, reference architectures and governed integration patterns.
Earn trust in autonomy Embed identity, policy, evaluation, evidence, human oversight and audit into intelligent workflows.	Modernize regulated estates Connect AI safely to enterprise knowledge, APIs, events, core systems and cloud platforms.
Transform engineering Use AI across architecture, SDLC, QA, DevOps and SRE while preserving accountability and resilience.	Strengthen architecture governance Codify guardrails, automate conformance and make architecture a continuous engineering capability.
Preserve strategic choice Design portable model, tool and deployment boundaries that reduce concentration and sovereignty risk.	Build organizational capability Establish design authority, mentor architects and create reusable IP and decision frameworks.

CAREER & CREDENTIALS 27+ years of architecture leadership, AI innovation and BFSI transformation

APR 2025-PRESENT Tata Consultancy Services

Chief Architect - Agentic AI | BFSI CTO Group

• Own Agentic AI architecture strategy, reference architectures, platform patterns, governance and industrialization across BFSI.

• Lead Agent Factory, multi-agent and trusted-autonomy architecture for regulated financial services.

• Guide strategic architecture initiatives across UK/Europe, APAC/ANZ and MEA and shape reusable enterprise AI offerings and assets.

2013-MAR 2025 Tata Consultancy Services

Architecture / Technology Leadership | BFSI

• Led enterprise and next-generation architecture, DevOps and engineering-transformation programs for global BFSI clients.

• Built architecture practices, reference assets and reusable approaches; drove modernization and advised senior stakeholders through complex transformation decisions.

• Held design-authority, mentoring and practice-building responsibility alongside large-scale business leadership.

OCT 2010-OCT 2013 HCL Technologies

Enterprise Architect

• Architecture engagements through ADCOE for Brocade and Wolters Kluwer; TOGAF-based consulting for IHG and Pearson.

• Advised on Agile adoption, portal architecture and IT rationalization; applied HCL PRISM to rationalize enterprise landscapes.

• Contributed scalable solution architecture and represented HCL in industry standards activities.

2004-2010 Tata Consultancy Services

Solution Architecture Consulting / Centre of Excellence

• US-based client assignments for GE Healthcare, Johnson Controls and USAA; served as Solution Architecture Consultant for Johnson Controls (2004-2006).

• Progressed into Corporate Technology Excellence Group leadership; led Rational Software Group (2008-2009) and WebSphere Portal capability (2008-2010).

• Strategic consulting on SOA-enabled solutions, enterprise portals, Web 2.0 and IBM Smart SOA principles.

2002-2003 TCG Software Services

Software Engineer

• Sybase Financial Fusion product engineering and automated test-harness development across EJB, Unix and DB2.

• Built test automation for internet banking, bill-payment, cash-management and insurance product capabilities.

JUN 2000-JUN 2002 Earthbase Technologies

Analyst Designer

• Designed enterprise web portals and an end-to-end hospital management system on Java/Unix and Microsoft platforms.

• Designed business modules including accounts and diagnostics, strengthening distributed-systems and solution-design foundations.

JAN 1999-JAN 2000 Albatross Software

Programmer Analyst

• Java networking and web, Microsoft and Oracle development; Calcutta Stock Exchange back-office implementation.

• Worked across the delivery lifecycle in a compact services organization serving financial and web-platform needs.

AUG 1997-JUL 1998 Voltas Limited

Service Engineer

• Campus-hire role providing foundational exposure to service operations, customer expectations and quality-led delivery.

EDUCATION

M.E. Software Engineering | 2020
Jadavpur University | AI, Deep Learning, ML, NLP

B.E. Production Engineering | 1997
Jadavpur University

CERTIFICATIONS

TOGAF 8 | Certified Scrum Master | Sun Certified Enterprise Architect (Part I) | IBM ACE Application Development | Certified Mentor, TCS | Design Thinking Expert (E2) | IIT Kharagpur HAAI

ARCHITECTURE & TECHNOLOGY

Architecture: Enterprise, solution, platform, cloud, integration, modernization, Agentic AI, trusted AI and engineering architecture

AI: GenAI, LLMs, RAG, multi-agent systems, MCP/tool integration, AgentOps, governance and evaluation

Platforms: AWS, Azure, GCP, Kubernetes, Docker, Kafka, Python, Java, JavaScript, SQL, JEE and .NET

PUBLICATIONS & BOOKS

Financial Sentiment Analysis - Transfer Learning & Transformer Architecture (2022).

Multidomain Abstractive Summarization Using Salience Allocation (2024), arXiv:2402.11955.

Transformer Based Model for Continuous Neural Financial Forensics (2024).

Books: Adopting BizDevOps in Financial Services (TCS, 2023); Assessing DevOps Quantitatively in Business and Industry (2019).

INDUSTRY LEADERSHIP

Industry advisor to Jadavpur University's Department of IT; technology and architecture speaker; certified mentor and Design Thinking expert.

THOUGHT LEADERSHIP

Ethical Intelligence - human-centered, explainable decisioning for responsible autonomy.

Composable Agentic AI Ecosystems - Architecture-as-Code, AgentOps and governed scale.

Memory, Context and Continuity - persistent enterprise agents and context architecture.

Trust, Ethics and Guardrails-as-a-Service - policy, observability, alignment and zero-trust guardrails.

TRiSM - engineering trustworthy and auditable autonomy in Agentic AI.

Inside the Mind of an Autonomous Agent - plan-reason-execute loops and cognitive stacks for adaptive agency.

The Agentic Stack - vendor-neutral architecture for planning, reasoning, memory, tools and orchestration.

ARCHITECTURE LEADERSHIP THEMES

Design authority | Reference architectures | Platform strategy | Architecture governance | Practice building | Reusable IP | Executive advisory | Mentoring | Academic collaboration

NEXT-ROLE POSITIONING Where this experience creates disproportionate value

ENTERPRISE / CHIEF ARCHITECT Set AI-enabled target architecture, design authority and modernization direction across complex regulated estates.	AI PLATFORM & TRANSFORMATION LEADER Industrialize Agentic AI through reusable platforms, governance, operating models and engineering adoption.	CTO / TECHNOLOGY ADVISOR Translate frontier technology into practical investment choices, risk controls and measurable transformation roadmaps.