

SAANTU ROY

AI Solution Architect · Agentic AI Systems Lead · Enterprise Engineering Leader

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PROFESSIONAL SUMMARY

Enterprise AI Architect and Engineering Leader with **21+ years** building mission-critical platforms across global banking and fintech — in Singapore, Australia, Thailand, the USA, and India. Deep hands-on expertise in **Agentic AI systems design**: multi-LLM orchestration (Azure OpenAI, Anthropic Claude, AWS Bedrock, Google Gemini), RAG pipeline engineering, MCP server development, and LangGraph-based multi-agent workflows. Proven delivery record: **35% MTTR reduction** through agentic ITSM automation, **40% engineering effort reduction** via GenAI-powered DevOps, and 20–30% delivery optimisation across multi-cloud transformation programmes. Bridges engineering execution (Python, FastAPI, Spring Boot, Kubernetes) with enterprise architecture governance (TOGAF) and C-suite stakeholder leadership. Delivered enterprise solutions across global financial institutions including **Citibank, UBS, Credit Suisse, Standard Chartered Bank, and Kasikorn Bank**.

CORE COMPETENCIES

Agentic AI & LLMs: Azure OpenAI · Anthropic Claude · AWS Bedrock · Google Gemini · RAG (Agentic & Traditional) · MCP (Model Context Protocol) · LangGraph · Multi-Agent Systems · Prompt Engineering · NLP · LLM Evaluation

Languages: Python · Java · TypeScript · JavaScript (ES6+) · Node.js · Solidity · Shell

Back-End: FastAPI · Spring Boot · Django · NestJS · Express.js · REST APIs · GraphQL · Microservices · Kafka · Redis

Front-End: React · Next.js · Angular · Tailwind CSS · Material UI · Redux · Module Federation

Cloud & DevOps: AWS (Bedrock · EKS) · Azure (AKS · Functions) · GCP · Kubernetes · Docker · Terraform · Ansible · GitHub Actions · GitLab CI/CD · Jenkins · Azure DevOps

Data & Storage: PostgreSQL · MySQL · MongoDB · Oracle · CouchDB · Vector DBs (Pinecone · FAISS)

Enterprise & Architecture: ServiceNow · ITSM · CMDB · TOGAF · Event-Driven Architecture · Micro-services · API Gateway · IaC · Cloud Migration

Blockchain: Hyperledger Fabric · Ethereum · Solidity · Smart Contracts · dApps · NFTs

PROFESSIONAL EXPERIENCE

Fullstack AI Tech Lead Jun 2026 – Present

Tata Consultancy Services (TCS)

► **Overseeing delivery of an FX trade platform** — Spring Boot micro-services application deployed on Azure Container Apps, managing end-to-end foreign exchange trade lifecycle operations.

► **Managing Azure DevOps CI/CD pipelines** — sprint governance, release coordination and delivery oversight across cross-functional engineering teams.

► **Leading AI scoping and feasibility analysis** to identify intelligent automation opportunities within FX trading workflows — covering LLM integration, anomaly detection and process optimization.

Solution Architect — AI Tech Lead Apr 2022 – May 2026

Wipro Limited, Bangalore

Spearheaded enterprise AI transformation for Tier-1 banking clients — architecting production agentic AI systems that delivered measurable reductions in operational costs and delivery cycle times at scale.

► **Architected a Unified Agentic AI Platform** for intelligent ITSM operations: a multi-LLM orchestration layer spanning Azure OpenAI, Anthropic Claude, AWS Bedrock, and Google Gemini — integrated with ServiceNow across multi-

cloud (AWS + Azure + GCP). Automated 60%+ of Tier-1 incident routing and reduced mean-time-to-resolution by 35%.

- ▶ **Built production MCP (Model Context Protocol) servers** exposing enterprise data sources — CMDB, ITSM tickets, runbooks — as tool-callable context for LLM agents, enabling real-time grounded AI decision-making in service operations.
- ▶ **Engineered LangGraph multi-agent workflows** for incident triage, root cause analysis, and automated remediation — reducing analyst investigation time and improving first-pass resolution rates in production.
- ▶ **Designed and delivered CraftBOT**, a GenAI-powered infrastructure automation assistant using RAG workflows, Ansible playbook generation, and Python microservices — enabling DevOps engineers to provision infrastructure via natural language. Cut engineering effort by 40% across cloud operations.
- ▶ Drove end-to-end cloud transformation across AWS, Azure, and GCP: IaC (Terraform, Ansible), CI/CD pipelines (GitHub Actions, GitLab, Jenkins), and observability stacks — achieving 20–30% delivery effort optimisation.
- ▶ Built production-grade microservices (Spring Boot, FastAPI, Django) and React/Next.js front-ends for enterprise-scale cloud-native banking deployments.
- ▶ Defined transformation roadmaps, led architecture governance, and mentored cross-functional teams of 8–12; owned stakeholder communication from engineering sprint to C-suite.

Solution Architect Mar 2019 – Apr 2022

Cognizant Technology Solutions, Kolkata

- ▶ **Led enterprise conversational AI initiatives** — built customer insights platforms using Rasa, Google Dialogflow, and Amazon Lex, adopted across 3 enterprise banking clients.
- ▶ **Architected the openIDL blockchain regulatory data pipeline** on Hyperledger Fabric with Spring Boot, MongoDB, and AWS — enabling multi-party insurance regulatory compliance data exchange with distributed trust; significantly reduced reconciliation time.
- ▶ Built full-stack web applications (React, Angular, Next.js) and scalable REST microservices backends (Spring Boot, FastAPI) on Kubernetes for enterprise banking clients.
- ▶ Led hybrid cloud modernisation programmes; owned sprint governance, technical delivery, and cross-functional stakeholder management for teams of 6–10.

Solution Architect Feb 2014 – May 2018

HP Inc., Singapore

- ▶ **Built WOBE/MOBE**, HP's printing-as-a-service platform: Python, Django, Flask, REST APIs, and NLP-driven workflow automation enabling enterprise-scale print routing and SLA management for HP's global client base.
- ▶ Designed and integrated ML models for customer behaviour analytics and predictive workflow automation across HP enterprise platforms.
- ▶ Developed firmware validation and testing automation suites — significantly reducing manual engineering effort across hardware and software teams.

Technical Lead Sep 2012 – Dec 2013

Financial Institution, Singapore

- ▶ **Led design and delivery of ICDMS** — enterprise document and compliance management platform on Core Java with workflow orchestration for banking regulatory operations.
- ▶ **Translated complex regulatory requirements** into production-grade technical architecture; drove high-performance automation frameworks for operational workflows.

Technical Manager Jan 2012 – Jun 2012

Financial Institution, Bangkok, Thailand

- ▶ Led Temenos core banking modernisation across trade finance modules; delivered reconciliation workflows, Shell scripting automation, and MQ-based enterprise integration solutions.

Technical Lead Apr 2006 – Dec 2011

Financial Institution, Singapore

- ▶ **Led technical delivery for GOMAN** — Core Java enterprise automation for high-volume equities and derivatives trading; improved transaction workflows, reconciliation automation, and platform reliability.
- ▶ Implemented MiFID compliance automation and MQ-based enterprise messaging for secure high-volume financial transaction processing.

KEY AI & ENGINEERING PROJECTS

Unified Agentic AI Platform for Intelligent Service Operations · Wipro

Multi-LLM agentic system (Azure OpenAI, Anthropic Claude, Google Gemini, AWS Bedrock) integrated with ServiceNow ITSM. Built MCP servers exposing enterprise CMDB and runbooks as LLM agent tools, LangGraph orchestration workflows, Python microservices, and a Next.js operations dashboard. Automated 60%+ Tier-1 incident routing; 35% MTTR reduction at enterprise scale.

CraftBOT — GenAI Infrastructure Automation Assistant · Wipro

RAG-powered DevOps assistant (Azure OpenAI + Python + Django + Ansible). Engineers provision cloud infrastructure, generate configuration playbooks, and execute DevOps workflows via natural language prompts. 40% engineering effort reduction across cloud operations teams.

openIDL Blockchain Regulatory Data Pipeline · Cognizant

Hyperledger Fabric blockchain pipeline for insurance regulatory reporting: Spring Boot, MongoDB, AWS. Secure distributed REST APIs and multi-party compliance data exchange workflows.

ARENA — Enterprise Engagement & Gamification Platform · Wipro

Cloud-native platform (React, Node.js, Azure Functions, MongoDB) delivering modular UI components, REST APIs, and backend automation for enterprise learning and engagement at scale.

WOUBE / MOUBE — HP Printing-as-a-Service · HP Inc., Singapore

Cloud-based enterprise print automation (Python, Django, Flask, NLP workflows) enabling intelligent customer routing, operational automation, and SLA management for HP's global enterprise print services.

GOMAN — Global Order Management Platform

Core Java enterprise automation for high-volume equities and derivatives trading. Improved transaction processing, reconciliation workflows, and platform reliability within Credit Suisse's global markets infrastructure.

EDUCATION

M.Sc. Information Technology 2001 – 2004

Manipal Sikkim University, Karnataka

B.Sc. Computer Science 1995 – 1998

Gauhati University, Assam

CERTIFICATIONS & CONTINUOUS LEARNING

2026 · Pursuing Executive Post Graduate Programme in Generative AI · IIT Kharagpur

2025 IBM RAG and Agentic AI — Professional Certificate · IBM

2022 Professional Certificate in Blockchain · IIT Kanpur

2021 Nanodegree in React · Udacity

2021 Professional Data Science Certification · IBM