

SUBHODEEP MITRA

Principal AI Architect | Azure AI & Enterprise GenAI Solutions

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CORE SKILLS

Agentic AI

Multi-agent orchestration, planner-executor patterns, tool-calling, LangGraph, AutoGen, Semantic Kernel; cross-platform delivery on Azure, AWS, and Databricks.

AI Architecture & Patterns

Reference architectures for enterprise GenAI, RAG, agentic systems, and event-driven AI; trade-off analysis on latency, cost, accuracy, and governance.

Generative AI

LLMs, RAG, vector embeddings, semantic search, prompt engineering, evaluation, guardrails, Responsible AI.

Azure AI

Azure AI Studio, Azure OpenAI (GPT-4), Azure ML, Cognitive Services, AI Search, Prompt Flow.

AWS AI

Amazon Bedrock (Claude, Llama, Titan), Bedrock Agents, SageMaker, Lambda-based agent tools.

Databricks AI

Mosaic AI Agent Framework, Vector Search, Model Serving, MLflow, Unity Catalog, RAG Studio.

AI Security & Governance

Responsible AI, prompt-injection defense, PII redaction, Azure AI Content Safety, role-based access, audit trails, EU AI Act / NIST AI RMF alignment.

ML & NLP

Classification, NER, summarization, topic modeling, computer vision, predictive modeling.

Data & Knowledge Engineering

Vector databases (Azure AI Search, Pinecone, Weaviate), knowledge graphs,

SUMMARY

Principal AI Architect and applied-AI engineering leader with 11+ years designing and delivering enterprise AI solutions on Microsoft Azure (Azure AI Studio, Azure OpenAI / GPT-4, Azure Databricks, Azure ML, Cognitive Services), alongside AWS and GCP. Specialist in production Generative AI — LLM and multi-agent applications, RAG, semantic search, and intelligent automation — from PoC through scaled, secure, cost-aware production. Trusted advisor translating ambiguous requirements into reliable, governed AI architectures. Hands-on leader of cross-functional teams (15–20) across NLP, CV, and MLOps over the full model lifecycle.

SELECTED ACHIEVEMENTS

- Azure-native GenAI delivery: Deployed OpenAI models via Azure AI Studio for multilingual text analysis and dynamic content generation with prompt engineering and evaluation workflows.
- Enterprise GenAI architecture (GPT-4): Architected production Generative AI on OpenAI GPT-4 automating product content and metadata generation at enterprise scale for a global FMCG leader.
- Reusable RAG & agentic assets: Built Databricks-based RAG and multi-agent platform assets that accelerated enterprise AI adoption and standardized solution patterns.
- Multi-cloud solution design: Designed and deployed multi-agent LLM workflows across Azure and AWS with built-in evaluation, scalability, and reliability.
- Trusted advisor & leadership: Partner with stakeholders to translate context into AI architectures; lead and mentor 15–20 engineers from problem framing to production.

EXPERIENCE

Lead AI/ML Engineer — GenAI, Agentic AI & Data Science • Tiger Analytics

Aug 2024 – Present • Pune / Chennai, India

- Architect and deploy multi-agent LLM systems and enterprise GenAI workflows across Azure and AWS, embedding evaluation, scalability, security, and reliability into production.
- Lead and mentor a cross-functional team of 15–20 senior data scientists and ML engineers; own solution delivery end-to-end.
- Build reusable Databricks Generative AI and RAG assets that standardize patterns and accelerate enterprise AI time-to-market.
- Trusted technical advisor — translate ambiguous business problems into reliable, cost-aware AI solution designs.

Senior Data Scientist / Senior Associate — AI & Analytics • Cognizant Technology Solutions

Feb 2023 – Aug 2024 • Kolkata, India

- Architected enterprise GenAI solutions on OpenAI GPT-4 and Azure AI Studio, delivering automated content generation and scalable multilingual text analysis for global clients.
- Drove solutions end-to-end from PoC to full production, translating business context into measurable, governed outcomes.

chunking strategies, hybrid retrieval, Delta Lake, Lakehouse design.

MLOps & Integration

CI/CD, Docker, Kubernetes, REST APIs, Spark, SAP BODS / BW, ETL/ELT.

LLMOps & Observability

LangSmith, Azure AI Foundry tracing, model evaluation harnesses, drift monitoring, A/B testing, cost telemetry, Prompt Flow evals.

Cloud

Microsoft Azure (primary), AWS, GCP.

Languages & Stores

Python, SQL, Java, C/C++, R, Shell, Node.js; PostgreSQL, Oracle, SQL Server, Teradata, MongoDB.

EDUCATION

M.Tech, Data Science & Engineering

BITS Pilani • 2021–2023

PG Diploma, Industrial Automation

NIELIT, Calicut • 2012–2013

M.S., Systems Engineering

(incomplete)

Boston University, USA • 2009–2012

B.Tech, Electrical Engineering

B.P. Poddar Institute, WBUT • 2005–2009

CERTIFICATIONS

- Databricks Certified Generative AI Engineer Associate
- Adv. Cert. Quantum Computing & AI/ML — IIT Roorkee (exp. Jul 2026)
- ITIL Foundation

PUBLICATIONS

“Intelligent Home Automation System”

Peer-reviewed research on scalable, AI driven automation frameworks.

LANGUAGES

English • Hindi • Bengali • Spanish • Italian

- Applied deep learning across text, speech, image, and video (TensorFlow, PyTorch); continuously improved model accuracy and quantified business impact.

Technical Consultant / Senior Consultant — AI/ML • Capgemini Technology Services

Jun 2021 – Feb 2023 • Kolkata, India

- Designed AI/ML account-intelligence solutions (Client360, APEX, Big Deals Radar) with Global Sales / GTM teams, turning fragmented data into automated decision support.
- Engineered scalable NLP pipelines, intelligent web-scraping, and sentiment-analysis workflows (Node.js, PostgreSQL, Python, Flask REST APIs).
- Researched Quantum Computing and Quantum Machine Learning (QML) use cases for forward-looking enterprise innovation.

Associate Technical Consultant • Capgemini Technology Services

Jul 2020 – Jun 2021 • Kolkata, India

- Built automated data-extraction and ingestion pipelines using intelligent web scraping and advanced extraction methodologies.
- Integrated predictive models into NLP pipelines to optimize large-scale sentiment analysis for operational reporting.

Team Lead, Associate Consultant — Client: Burberry Group PLC •

Capgemini Technology Services

Oct 2018 – Jul 2020 • Kolkata, India

- Managed a 6-person engineering team as the primary technical liaison between application-development units and global business stakeholders.
- Engineered machine-learning forecasting models for supply-chain allocation and replenishment; built SAP BODS / BW data-integration and BI jobs.
- Developed the deep-learning “Fashion Finder” computer-vision mobile app for automated article recognition and merchandise recommendation.

Senior Software Engineer / Software Engineer • Capgemini

Technology Services

Aug 2015 – Oct 2018 • Kolkata, India

- Administered enterprise databases (Oracle 11g/12c, MS SQL Server) and managed Control-M scheduling across diverse infrastructure environments.
- Authored shell-script automation for code deployment, capacity planning, health checks, and disaster recovery.