

ABHISHEK PANDA Architect | Enterprise AI Solution Architect

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EXECUTIVE SUMMARY

- **Enterprise AI Solution Architect** with **12+ years** in software engineering, including **4+ years** designing and delivering production Generative AI, agentic and ML solutions on **Azure** and **AWS**.
- Architects governed, secure multi-agent, **RAG** and **MLOps** platforms for **insurance**, **automobile** and enterprise support domains.
- Prior experience in **regulated banking**, **insurance** and **aviation** platforms adds depth in security, compliance and large-scale cloud integration.
- Hands-on with Microsoft **Foundry**, **Azure OpenAI**, **Semantic Kernel**, **Amazon Bedrock**, **Amazon SageMaker**, **LangGraph** and **MCP**.

WORK HISTORY

Quality AI ☎, Architect | AI Solution Architect

Mar 2026 – Present | Bengaluru

Hiscox – London Market Insurance

- Architect secure, governed, cloud-native AI solutions on Azure for underwriting transformation in the London Market, covering submission intake, document understanding and intelligent workflow automation.
- Design multi-agent architectures with Microsoft Foundry and Azure AI Foundry Agent Service for underwriting, document intelligence and knowledge discovery, defining agent roles, tool boundaries and human-in-the-loop review.
- Build Model Context Protocol (MCP) integrations connecting AI agents to enterprise APIs, knowledge repositories and insurance platforms.
- Develop RAG pipelines and backend services with Semantic Kernel, Azure OpenAI Service and Python to ground answers in policy, submission and underwriting documents.
- Define AI governance patterns for a regulated insurance environment: access control with Microsoft Entra ID, secrets in Azure Key Vault, audit logging, guardrails and prompt-security controls.
- Set LLM evaluation and observability practices (accuracy, latency and cost) to support production readiness.

Technologies: Microsoft Foundry, Azure AI Foundry Agent Service, Azure OpenAI Service, Semantic Kernel, MCP, RAG, Python, REST APIs, Docker, Kubernetes, Microsoft Entra ID, Azure Key Vault

Solera | Smart Drive ☎, Senior Software Engineer (AI/ML R & D Division)

Jan 2023 – Aug 2025 | Bengaluru

Enterprise Fleet Intelligence & AI Platform (GFP)

- Built and deployed PyTorch driver-performance models on Amazon EKS, enabling real-time scoring for 10K+ active fleet drivers.
- Developed embedding-based route intelligence from fleet telemetry using Amazon Bedrock, improving route efficiency by ~18% and reducing fuel-related costs by ~12%.
- Built an enterprise RAG platform on Amazon OpenSearch Service with hybrid retrieval across 100K+ documents, reducing query-resolution time by 35%.
- Designed LangGraph-based multi-agent workflows for predictive maintenance, reducing manual diagnostics by ~30%.
- Implemented MLOps pipelines with Amazon SageMaker and MLflow, adding LLM observability and cost controls: deployment time down 40%, inference costs down ~15%.
- Served models, RAG and agent workflows as containerized FastAPI microservices on Amazon EKS with CI/CD-based releases.
- Owned the model lifecycle end to end on AWS: data preparation from fleet telemetry, training, deployment, monitoring and retraining.
- Worked with product, data and platform teams to take AI features from prototype to production.

Technologies: Python, PyTorch, FastAPI, Amazon Bedrock, Amazon SageMaker, Amazon OpenSearch Service, Amazon EKS, LangGraph, MLflow, Docker, PostgreSQL

Accion Labs ☎, Principal Software Engineer

Jun 2022 – Dec 2022 | Bangalore, India

Engaged on **contract** via **KPMG** (Jun2022 - Aug 2022); **converted to full-time** with **Accion Labs** (Aug 2022 - Dec 2022)

DELL (Enterprise Conversational AI Platform)

- Designed an enterprise chatbot platform automating 25K+ monthly support queries, reducing manual support workload by ~35%.
- Raised intent classification accuracy to 92% using BERT-based transformer models built with Hugging Face Transformers.
- Built a semantic retrieval pipeline using Sentence Transformers embeddings on Azure AI Search, improving contextual response accuracy by 28%.
- Deployed containerized FastAPI inference services on AKS with sub-second response latency.

Technologies: Python, BERT, Sentence Transformers, Scikit-learn, FastAPI, Docker, Azure Kubernetes Service (AKS), Azure AI Search, PostgreSQL

Wells Fargo ☎, Assistant Vice President

May 2020 – Jul 2022 | Hyderabad, India

Wealth & Investment Management Technology (WIMT)

- Led .NET application modernization and Azure cloud architecture for mission-critical brokerage platforms within a regulated banking environment.
- Architected and governed 14+ brokerage platforms using .NET Core, ASP.NET Core, microservices and REST APIs, ensuring security, scalability and regulatory compliance.
- Designed event-driven services integrated with AKS, Azure SQL, Service Bus, Key Vault, Entra ID and enterprise trading systems.
- Established architecture governance, coding standards, CI/CD controls and security baselines across engineering teams.
- Led production reliability, root-cause analysis, SLA governance and blue-green and canary deployment strategies for critical applications.
- Improved infrastructure efficiency by 40%, optimized annual cloud costs and mentored 10+ engineers across .NET, Azure and DevOps.

Technologies: C#, .NET Core, REST APIs, Microservices, Azure, AKS, Azure SQL, Service Bus, Key Vault, Entra ID, Docker, Kubernetes, Github, GitHub Actions.

Virtusa  , Associate Consultant

Aug 2018 – Jun 2020 | Qatar, Doha

- Delivered Azure cloud modernization and a microservices architecture for passenger disruption and ground-operations workflows.
- Architected .NET Core microservices on Azure to replace legacy monolithic applications, improving scalability, maintainability and operational resilience.
- Designed secure enterprise APIs with Azure API Management (APIM), OAuth 2.0, JWT validation, throttling and policy-based governance.
- Built event-driven workflows with Azure Functions and Azure Service Bus for real-time passenger disruption management.
- Led the modernization of .NET Framework applications and Angular operational dashboards into cloud-native architectures.
- Worked onsite in Doha with aviation, product and engineering stakeholders to align solutions with enterprise architecture, security and compliance standards.

Technologies: C#, .NET Core, Microservices, Azure API Management (APIM), Azure Functions, Azure Service Bus, OAuth 2.0, JWT, Angular, Entity Framework, Azure DevOps

JD Sports & Fashion  , Software Engineer

Apr 2018 – Jun 2018 | Hyderabad

- Developed enterprise retail applications supporting order processing, inventory management and customer-service workflows.
- Built and enhanced C# and .NET core Web API services integrated with Angular applications and SQL Server.
- Implemented RabbitMQ-based asynchronous messaging to improve scalability and reliability across retail workflows.
- Contributed to Git-based CI/CD pipelines, release automation, testing and production support.

Technologies: C#, .NET Core, Microservices, Angular, SQL Server, Azure DevOps

Conduent  , Software Engineer

Jul 2015 – Jul 2017 | Bangalore, India

Client: **Bank of America**

Project: **Credit Operations & Financial Compliance Systems**

- Built secure .NET services and REST APIs for credit operations and compliance-driven financial workflows.
- Implemented secure API integrations, audit trails, validation controls, centralized logging and exception handling, reducing production downtime by ~35%.
- Supported Azure-hosted services, CI/CD pipelines, unit testing and structured SDLC practices for highly available, regulated platforms.

Client: **MetLife**

Project: **Insurance Policy Administration, Claims & Billing**

- Developed .NET Framework and .NET Core applications, microservices and REST APIs for policy administration, claims, billing and underwriting, integrated with Angular and SQL Server.
- Optimized SQL Server schemas, queries, indexes and stored procedures, improving transaction and reporting performance by ~30%.
- Applied unit testing, performance tuning and **SDLC** practices for highly available enterprise insurance systems.

Technologies: C#, .NET Framework, .NET Core, Microservices, REST APIs, Entity Framework, SQL Server, Azure App Service, Azure SQL, CI/CD, xUnit, Agile, SDLC.

TECHNICAL SKILLS

Programming

Python, FastAPI, C#, .NET Core, REST APIs, Microservices, SQL Server, PostgreSQL, Blazor, Angular

GenAI, Agentic AI & RAG

LLMs (GPT, Claude, Qwen, Llama), Prompt Engineering, Function Calling, Structured Outputs, Multi-Agent Systems, LangGraph, LangChain, Semantic Kernel, Model Context Protocol (MCP), Retrieval-Augmented Generation (RAG), Hybrid Search, Embeddings, Re-Ranking

AI Safety, ML & MLOps

Guardrails, Hallucination Reduction, LLM Evaluation, LLM Observability (LangSmith), PyTorch, Scikit-learn, Hugging Face Transformers, MLflow, Model Serving, Token Cost Optimization

Azure

Microsoft Foundry, Azure OpenAI Service, Azure AI Foundry Agent Service, Azure AI Search, Azure ML, AKS, Azure Functions, Azure API Management, Azure Key Vault, Microsoft Entra ID, APIM, Blob storage, Azure SQL, Cosmos DB

AWS

Amazon Bedrock, Amazon SageMaker, Amazon OpenSearch Service, EKS, ECS, AWS Lambda, S3, IAM, API Gateway, DynamoDB

DevOps & LLMOps

GitHub, Docker, Kubernetes, GitHub Actions, Argo CD, MLflow, Langsmith.

EDUCATION

B.TECH –Computer Science & Engineering, Biju Patnaik University of Technology (BPUT) 

2010 – 2014

CERTIFICATES

AZ-305 (Azure Solutions Architect Expert)

AI-103 (Azure AI Apps and Agents Developer).