



### Professional Synopsis

**Solution Architect with over 19 years of experience in, Enterprise level multi-cloud strategy, Agentic AI Architecture, specializing in designing, implementing, and optimizing hybrid and public cloud environments across Azure, AWS, and GCP. Certified as a Microsoft Azure Solutions Architect and AWS Solutions Architect, with a strong track record of driving digital transformation initiatives, delivering cost-effective, scalable, and secure solutions, and aligning IT strategies with business objectives. Experienced in working across diverse industries including Telecom, Manufacturing, Retail, E-commerce, Banking & Finance, Energy, Automotive, and Healthcare.**

### Areas of Exposure/Expertise

#### Cloud & Agent AI Architecture:

- **Microsoft Azure:** Expertise in planning, designing, and implementing Azure services, including:
  - ❖ **Compute & Networking:** Virtual Machines (VM), Virtual Networks (VNet), Load Balancer, Application Gateway, Traffic Manager, VM Scale Sets, Availability Sets, VNet Peering, NSGs, Service Endpoints, Private Endpoints, VPN, ExpressRoute.
  - ❖ **Storage & Databases:** Azure Storage, Azure SQL Database, Azure SQL Managed Instance, Azure Data Factory (ETL).
  - ❖ **Business Continuity and Disaster Recovery (BCDR):** Azure Recovery Services Vault, Azure Site Recovery, BCDR for PaaS & IaaS.
  - ❖ **Advanced Azure Services:** Azure Monitor, Azure Policy, Azure Landing Zone, Azure Advisor, Azure Cost Management, Azure Update Management, Azure Automation, Azure Web Apps, Azure Functions, and AKS (Azure Kubernetes Service).
- **Amazon Web Services (AWS):** Expertise in planning, designing, and implementing AWS services, including:
  - ❖ **Core Services:** EC2, VPC, S3, EBS, ELB, Auto Scaling, Route 53, IAM, CloudWatch, FSx, Redis Cache, Directory Services, Security.
  - ❖ **Cloud Architecture & Governance:** AWS Control Tower, Landing Zones, VPC Peering.
  - ❖ **Understanding of data pipelines, API integration, and cloud deployment.**
  - ❖ **Modernization & Migration:** Application & Database modernization with rollback deployment strategies, file server migration with AWS AD integration.
  - ❖ **Enterprise Workloads:** Amazon Workspaces architecture design.
- **Cloud Transformation & Migration:**
  - ❖ Planning and migrating workloads to public clouds as part of transformation journeys.
  - ❖ Expertise in **cloud adoption journeys** – migrating workloads to Azure & AWS, designing hybrid and multi-cloud strategies.
  - ❖ Designing and deploying **Landing Zones** aligned with Microsoft CAF and Well-Architected Framework
  - ❖ Building scalable segmented **VNet and VPC topologies** including peering, route tables, private DNS, and Azure Virtual WAN.
  - ❖ Implementing secure **Express Route and VPN** integrations with on-premises data centers.
- **Agentic AI:** AWS Sage Maker & Bedrock – Account configuration, architectural design, and model deployment.
  - ❖ Design & Build AI Agents using LLMs, NLP pipelines, & planning algorithms for document/email parsing & decision-making.
  - ❖ Strong experience with **Tensor Flow, PyTorch, and LangChain, LangGraph**, **Fine-tuning** or similar frameworks.
  - ❖ **Designing a Multi-Agent RAG System with Vector Databases across AWS & Azure**.
  - ❖ **Multi-Agent Coordination:** Distributed systems where specialized agents collaborate on complex Workflows.
  - ❖ **Tool Integration :** Seamless API calls (FAPI) database operations and external service orchestration.
  - ❖ Hands-on experience with NLP, document classification, email parsing, and retrieval-augmented generation (RAG).
  - ❖ Familiarity with agent frameworks (e.g., AutoGPT, CrewAI, ReAct).
  - ❖ Experience with vector databases, prompt engineering, and LLM fine-tuning.
- **Application Services & DevOps:**
  - ❖ Designing & deploying **Azure & AWS App Services** for web apps and APIs, integrated with Private Endpoints, Managed Identity, App Service Environments (ASE), and VNets.
  - ❖ Optimizing **scalability, availability, CI/CD pipelines, and monitoring.**
- **Security & Governance:**
  - ❖ **Designing secure network topologies with NSGs, ASGs, Azure Firewall, WAFs.** Implementing **cost optimization, compliance.**
- **Documentation & Knowledge Sharing :**
  - ❖ Delivering **High-Level Designs (HLDs)** and **Low-Level Designs (LLDs)** aligned with CAF and Well-Architected Frameworks.
  - ❖ Creating architecture diagrams, documentation, and conducting internal **knowledge transfer sessions.**
- **Analytics service:**
  - ❖ Synapse Analytics , Stream Analytics , SQL Data Warehouse) , Power BI / Tableau , Data-bricks , Data-Lake ,Data -Pipeline, ETL tool ADF, AI/ML, Blob Storage, Event Hub, IOT hub, Logic Apps, Azure Stack)
- **DevOps & Automation:**
  - ❖ Proficiency in **DevOps** Tools: GitHub, Terraform (Infrastructure as Code), and Azure DevOps & AWS DevOps
  - ❖ Very good exposure in deploying cloud resources via Terraform and Azure DevOps & AWS DevOps.
  - ❖ Experience in preparing Proof of Concepts (POCs) for various cloud-based solutions.
- **Data Centre, Virtualization & Operating System:**
  - ❖ **Data Centre Transformation:** Expertise in consolidation, cost optimization (on-premises & cloud), architectural assessment, technical advisory, technology roadmap, governance, and security.
  - ❖ **Server Management:** Planning, installation, and configuration of servers including HP ProLiant, HP Blade System C7000.
  - ❖ **Operating Systems:** Implementation and configuration of Windows Server 2008/2012/2016, windows clustering, RHEL, etc.
- **Enterprise Architecture & Methodologies:**
  - ❖ Proficient in Agile/DevOps Methodologies.
  - ❖ Solid understanding of TOGAF Enterprise Architecture Development Methodology (ADM) and ITIL processes.
- **Monitoring and Backup Tools:**
  - ❖ Grafana, Logic Monitor, Moog Soft, Rubric etc.

## Competency & Technical Acumen

- Architecture Assessment	: Proof of Concepts (POCs)
- Cloud Migration	: Guiding & Mentoring
- Cost Optimization	: Partner Engagement,
- Cloud Governance & Security	: Business Continuity/Disaster Recovery (BCDR)
- Technical Advisory	: Cloud cost management
- IT Policies & Best Practices	: Datacenter consolidation & Technology Roadmap
-Agentic AI	: Building Multi Agentic AI RAG with Vector Database

## Certification

Microsoft Certified Azure Solutions Architect-Expert.

Organizational Leadership Program: *Stanford University Graduate School of Business*

Completed an Organizational Leadership Program with a focus on **Tech Stack**: Multi-Cloud (AWS, Azure, GCP), DevOps, and AI/ML technologies.

## Technical Skills / Technology Stack :

**Programming Languages**: C, C++,C#, Python.

**Database(s)**: MS SQL Server (2008/R2), ORACLE 8, SAP HANA 1.0 , Postgres.

**Data Modelling Tool**: Star Schema, Schema Modelling, ERWIN 6.0,

**Reporting Tools**: Crystal Reports, MS Power-BI, and Tableau.

**Cloud Platforms**: AWS, Azure, GCP, DevOps, IOT, Micro service.

**Agent AI**: LangChain, LangGraph, PyTorch, MLFlow,

**Big Data Analytics**: Synapse Analytics ,Stream Analytics , Batch Processing, Azure SQL Data Warehouse, Data-Lake, Data bricks, ADF, Azure Data Pipeline ,Azure Blob Storage, Azure Event Hub , Azure IOT, AI/ML

**Microsoft technology**: .Net Framework, MVC Framework, ADO.Net, EF, Ajax ,Angular JS ,React JS, XML, XSLT ,Java-Script, UML Diagram, OOAD Dependency Injection / IOC, Test Driven Development (N-Unit),TFS,VSS, SVN, Agile (Scrum) JIRA .

## Organisational Details

Since Feb 2024 to till date with Ascent Health, Hyderabad as Solution Architect.

**Role**: Solution Architect

### (ARMS), (EVBV) Auto Coding Application, Patients Health Data Processing (Used AWS, Azure Cloud)

This Product is to modernize ARMS application suite and corresponding database schemas with a view to make it more maintainable and to service increasing business requirements of current & future provider (i.e.healthcare professional/medical doctor) clients into future. This can be achieved through application modernization activity as per being proposed application & infrastructure architecture while hosting the application upon scalable infrastructure on AWS & Azure

### AI agent Based Autonomous Medical Coding doctors analyzed medical data, with administrative tasks to support patients. (Agent AI)

AI agent technologies present a transformative opportunity to automate and streamline the medical coding process, improving efficiency, accuracy, and success rates while reducing administrative overhead. By leveraging technologies such as **Large Language Models (LLM)**, **Retrieval-Augmented Generation (RAG)** and **Agent AI (Agent AI)**, healthcare providers can optimize their medical coding process and improve revenue recovery. The **increase in autonomous medical coding success rates**, along with **faster claim resolutions** and **improved cash flow**, provided a clear return on investment. This solution approach enhance **scalability**, allowing providers to **manage increased patient volumes without additional staffing**, thereby future-proofing their RCM operations against regulatory changes and evolving healthcare demands. This success story highlights the power of **Agent AI technologies** in addressing inefficiencies in the medical coding process, analyzed medical data offering healthcare providers the opportunity to enhance their **RCM processes**, improve **financial performance**, and focus on delivering better to support patients.

### Patients Health Data Processing (Used Microsoft Azure Stream Analytics)

**Tec stack**: Stream Analytics (Streaming Analytics job, Event Hub, Blob Storage, Azure Function, MS Azure SQL DB, Azure SQL Data warehouse, Power BI).

**Environment**: Azure & AWS, Agile methodology.

#### Responsibilities:

- Working for different projects and getting the business requirement to plan, design, and implementation of different solutions in hybrid cloud environment.
- Planning, design, implementation of AWS & AZURE services like EC2, EBS, VM, VNET,VPC,S3, Storage, Load balancer, Application gateway, Traffic manager, VM scale sets, availability set, VNET, VPC peering, NSG, service endpoint, Landing Zone ,UDR, private endpoint, Azure recovery service vault for backup and Azure site recovery for DR, Azure SQL DB,Azure SQL, PostgreSQL , RDS , Policy, Monitor, Roll assignment Cloud Monitor Cost management, Update Management, Automation, Webapps, BCDR for PAAS and IAAS solutions etc.
- Assessing architecture for different technologies like storage, backup, virtualization, databases etc for stabilization of IT environment. Worked on Landing zone , Microsoft AD, RedisCach, Workspace,Fileserver Extension.
- Providing resilient, secured, and cost-effective solution for on-prem and Public Cloud as per client requirements.
- Preparing HLD and LLD for solutions as per client requirement with respect to Infrastructure, Data, Application, Security according to cloud adoption framework and well architected framework.
- Discovery, assess and migrate different workloads to Public Cloud.
- Guiding and supporting to deploy cloud resources through terraform, azure DevOps.
- Preparing POCs for different cloud and op-prem solutions.
- Datacentre consolidation, on premises and cloud cost optimization,Architectural assessment, technical advisory, technology roadmap.
- Design and implement scalable data architectures that meet the evolving needs of the organization
- Lead the development of data models data flow diagrams and technical specifications for data solutions
- Provide technical leadership and mentorship to tem data architects and engineers on best practices in data design & implementation
- Build and developed data strategy and road map for Azure Stream Analytics, Azure Synapse, Azure SQL Data Warehouse.
- Engaged with various business users and Stake holders in order to increase the visibility of Data science project and analytics stream.

- Architect design develop Data Analytics Solutions practice including set up Big Data roadmap build supporting environment Infrastructure provide team Big Data platform.
- Architecting & implementing Portfolio Recommendation Azure Synapse, Azure stream Analytics, Azure ADF, Azure ETL Azure Data Warehouse, Data bricks, Data-Lake, Data-Factory , Data-Pipeline, Event Hubs, IoT-Hub, Blob Storage , Power BI / Tableau Server less Dedicated SQL Pool, Spark Pool, AI/ML.
- Implemented large Lambda architectures using Azure Data platform capabilities like Azure Data Lake, Azure Data Factory, HDInsight, Azure SQL Server, Azure AI/ML and Power BI.
- Excellent understanding of stream Analytics , Synapse architecture and underlying framework including storage Management.
- Extensive experience in Data Pipeline, Data Modeling, Data Analysis , Data Monitoring, Data architect, Data Security, Data Warehousing, business intelligence concepts and master data management (MDM) concepts.
- Expertise in architecting Big-data solutions using Data ingestion,Data Storage,Worked on NoSQL databases, Cassandra,Mongo-DB, database performance tuning.
- Bringing up the server & VMs in-case of failure to manage proper way, routing the configuration to accessible. Strong understanding across Cloud and Infrastructure components (Server, Storage, Network, Data Base & application) deliver end to end On Premises Cloud Infrastructure & designs using Terraform.
- Creating road map & providing strategies in Big data analytics High-level technical solution for business requirements.
- Exposure to complex & large-scale enterprise development environment .
- Expertise on working with **Streaming Analytics job ,IOT Hub, Blob Storage, Azure Function, MS Azure SQL DB, Azure SQL Data warehouse.**
- Designing and delivering Azure Data Stream Analytics solutions.
- **Data Pipeline ,Data Modeling ,Data Analysis, Data Monitoring ,Data Security ,Data-Extraction , Data Processing**
- **Experience optimizing ETL tools like ADF workflows.**
- Master data management system and process design and implementation.
- Excellent in Logical and Physical Data Modelling using data modelling tools like Erwin, Enterprise Architect.

**Since Dec2017 to Feb'2024 with DIAGEO, Bangalore as Enterprise Cloud Architect.**

**Role: Enterprise Cloud Architect**

**Responsibilities:**

- Working for different projects, getting the business requirement to plan, design, and implementation of different projects in cloud environment.
- Planning, design, implementation of AZURE services like VM, VNET, Azure Storage, Azure Load balancer, Application gateway, Traffic manager, VM scale sets, availability set, VNET peering, NSG, service endpoint, UDR, private endpoint, Azure recovery service vault for backup and Azure site recovery for DR, Azure SQL DB, Azure SQL MI, Azure Data Factory, Azure SSIS IR, Azure policy, Azure Monitor, Azure Cost management, Azure Update Management, Azure Automation, Azure Webapps, BCDR for PAAS and IAAS solutions etc.
- Providing resilient, secured, and cost-effective solution for Public Cloud as per client requirements.
- Preparing HLD and LLD for solutions as per client requirement with respect to Infrastructure, Data, Application, Security according to the cloud adoption framework and well architected framework. Discovery, assess and migrate different workloads to Public Cloud.
- Guidance and support to deploy cloud resources through Terraform, azure DevOps. Preparing POCs for different cloud solutions.
- Bringing up the server & VMs in-case of failure to manage proper way, routing the configuration to accessible. Strong understanding across Cloud and Infrastructure components (Server, Storage, Network, Data Base & application) deliver end to end On Premises Cloud Infrastructure & designs using Terraform.
- Creating road map & providing strategies in Big data analytics High-level technical solution for business requirements.
- Exposure to complex & large-scale enterprise development environment.

**Since Jan'2015 to Nov'2017with Xerox Ltd, Bangalore as Technical Consultant.**

**Role: Technical Consultant**

**Responsibilities:**

- Working for different clients, getting the business requirement to plan, design, and implementation of different projects for hybrid cloud environment.
- Planning, design, implementation of AZURE services like VM, VNET, Azure Storage, Azure Load balancer, Application gateway, Traffic manager, VM scale sets, availability set, VNET peering, NSG, service endpoint, private endpoint, Azure recovery service vault for backup and Azure site recovery for DR, Azure Automation, Azure Monitor, Azure SQL DB, Azure Security Centre, Azure policy, Azure Advisor, Azure Cost management, Azure Update Management, Azure Webapps, VPN connectivity etc. BCDR for PAAS and IAAS solutions etc.
- Planning, design, implementation of AWS services like EC2, VPC, S3, EFS, ELB, EBS, auto scaling, Route 53, IAM, VPC peering, CloudWatch, VPN connectivity etc.
- Providing resilient, secured and cost-effective solution for Public Cloud as per client requirements.
- Discovery, assess and migrate Application and Database workloads to Public Cloud.
- Planning, design, installation, and configuration of SRM for Business Continuity and Disaster Recovery.
- Preparing different SOPs, design documents, infrastructure risk assessment and mitigation plan.
- Planning, Installation, configuration of Windows 2008/2012/2016 servers.

## Previous Work Experience

- ✓ January 2012 to December 2014 with IBM India.
- ✓ October 2007 to December 2011 with Dynamic Vertical Solution Ltd.
- ✓ December 2005 to Till September 2007 with CSM Technologies.

### Personal Data:

Sex: Male, Nationality: Indian, Religion: Hinduism, Marital Status: Married  
Highest Qualification: BSC(Science), GNIIT, PGDCA.

### Personal Interests

I have personal interest for watching Movies, Reading Newspaper, Magazine, Facebook, Tweeter, Link-din, WordPro's,  
I hereby confirm that the information and particulars furnished above are true and correct.

Thanking you  
**Gourang Samal.**