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PROFESSIONAL SUMMARY

Innovative Technical Architect, Senior Full Stack Developer, and Technology Lead with extensive experience designing, coding, and delivering enterprise-grade, data-intensive, cloud-native, and AI-powered solutions. expertise in SQL, Python (Pandas, PySpark), Databricks, ADL, and AWS, specializing in ETL pipelines, query optimization, and high-performance data processing. Skilled in building scalable front-end and back-end applications across .NET (4.6, .NET Core), React, and Node.js ecosystems, with seamless integration of Azure cloud, PowerShell, and Python automation. Specialized in AI/ML solutions, leveraging LLMs (GPT, Ollama, LangChain, LangGraph, CrewAI) and RAG-based intelligent search, delivering production-grade tools for transcription, diagnostics, billing automation, and semantic search. Proficient in data analytics and visualization (Power BI dashboards) and DevOps automation using Azure Pipelines, GitHub Actions, with containerized deployments (Docker, Kubernetes). Successfully implemented large-scale HIMS, LIMS, ERP, and Retail platforms, enabling AI-driven insights and operational excellence.

CORE COMPETENCIES & EXPERTISE

- ETL & Data Engineering: Build, optimize, and maintain scalable ETL pipelines using SQL Server, Databricks, ADL, Python (Pandas/NumPy/PySpark). Convert legacy SSIS jobs to cloud-native pipelines.
- SQL & Database Expertise: 7+ years of strong T-SQL, stored procedures, indexing, query optimization, SSIS, SSRS, and database migrations. Experience with NoSQL databases (Cosmos DB, MongoDB).
- Python Development: Advanced Python skills for data extraction, transformation, analysis, and automation. Skilled in Pandas-driven ETL pipelines for high-volume data processing.
- Cloud Platforms: AWS (S3, Lambda, Glue, Redshift) and Azure (Databricks, ADL, Azure SQL, Service Bus). Expertise in cloud ETL orchestration and analytics-ready pipelines.
- AI/ML Integration: Implemented AI solutions using LLMs (GPT, Ollama, LangChain, LangGraph), RAG pipelines, and Python ML components for transcription, summarization, and semantic search.
- Analytics & Reporting: Designed and integrated Power BI dashboards, SSRS reports, and Python-based analytics for operational and executive insights.
- DevOps & Automation: CI/CD using Azure DevOps/GitHub Actions; containerized deployment via Docker & Kubernetes; workflow automation with Python and PowerShell.
- Collaboration & Documentation: Strong stakeholder communication; participation in project planning, design reviews, and technical documentation.
- Expert in designing, developing, and deploying applications using Microsoft technologies including ASP.NET (2.0–4.8), .NET Core (6, 8), Web API, WCF, and modern JavaScript frameworks (Angular, React, Vue.js). Experienced in maintaining VB6 legacy applications and upgrading them to modern .NET architectures.
- Strong experience in building scalable microservices and RESTful APIs, applying multi-tier architecture, Azure Functions, Azure Authentication (AD/B2C), and containerized deployments with Docker & Kubernetes.
- SQL Server expertise across design, T-SQL programming, query optimization, indexing strategies, SSIS, SSRS, and replication, with additional exposure to NoSQL databases (Cosmos DB, MongoDB.
- Azure Cloud proficiency including Azure App Services, Functions, Storage, Service Bus, Databricks, Azure SQL, Azure DevOps Pipelines, Key Vault, and API Management for secure, high-availability enterprise solutions.
- Proficient in cross-platform mobile development using Flutter, delivering robust solutions for Android and iOS platforms with seamless backend integration.

- Business Intelligence leadership: designed and integrated Power BI dashboards into .NET applications, enabling real-time reporting and analytics using data from Azure SQL, on-prem SQL Server, and Databricks.
- Agentic AI project experience: implemented AI-powered .NET applications integrating GPT, DeepSeek, Ollama, and LLaMA via LangChain, FAISS, Chroma for transcription, summarization, risk prediction, and semantic search. Used .NET for workflow orchestration, API integration, and secure data pipelines alongside Python AI components, ensuring enterprise readiness in healthcare and analytics domains.
- Skilled in integrating and automating third-party APIs and systems such as Aadhaar-based identity checks, healthcare lab equipment, and payment gateways (cash, card, UPI).
- Hands-on experience with CI/CD: built automated pipelines with Azure Pipelines and GitHub Actions for .NET Core, Web API, and microservices, ensuring quality with unit testing (MSTest, NUnit, xUnit) and automated deployments to Azure Kubernetes Service (AKS).
- Business Analyst expertise: gathering requirements, engaging stakeholders, defining workflows, preparing prototypes, and translating business needs into technical solutions.
- Extensive experience in reporting and analytics: SSRS, Crystal Reports, and Power BI embedded in .NET applications for operational and executive-level reporting.

TECHNICAL SKILLS

Category	Details
Programming Languages	Python (Pandas, PySpark, NumPy), SQL, T-SQL, C#, Dart, Python, Java, SQL, Node.js
Server-side Frameworks	ASP.NET Core, ASP.NET, MVC, Web API
Client-side Frameworks	Angular, React.js, Vue.js
Web & Frontend Technologies	HTML, CSS, JavaScript, TypeScript, Bootstrap, Blazor
Mobile Development	Flutter (Android/iOS), Android Studio
Advanced Technologies	RESTful APIs, Web Services, AI/ML Model Integration, Semantic Search, RAG Pipelines, Azure Data Lake, Synapse Analytics, Delta Lake, IoT Integration
Reports & Visualization	Power BI, SSRS, SSAS, SSIS, Tableau, Azure Data Factory, Databricks, Crystal Reports, Google Analytics, Azure ML
Databases	Azure SQL, SQL Server, Oracle, MongoDB, Databricks Delta Lake, Synapse Analytics
DevOps & Automation	Git, Azure DevOps, GitHub Actions, Jenkins, CI/CD Pipelines, Docker, Kubernetes, Terraform, Bicep, ARM Templates
Cloud Platforms	Microsoft Azure (Expert), AWS (Intermediate), GCP (Basic)
Integration Tools & Standards	HL7, FHIR, DICOM, Mirth Connect, PACS/RIS, Lab Equipment APIs, Aadhaar eKYC, Razor pay, PayPal, SMS/Email Gateways
AI & ML Integration	GPT, Ollama, LLaMA, DeepSeek, Azure OpenAI, LangChain, FAISS, Chroma
API & Gateway Management	Postman, Custom API Gateway
Security	SSL/TLS, Role-Based Access Control (RBAC), OAuth2, JWT, Digital Signatures
Development Methodologies	Agile (Scrum, Kanban), Test-Driven Development (TDD), Microservices Architecture, CI/CD, SDLC Best Practices
Certifications	Microsoft Azure Certified – AZ-104, AZ-900; Oracle Certified – Dev 2000, DCA
Integration Experience	Mirth Connect, HL7, Razorpay, PayPal, SMS/Email Gateways, Aadhaar Authentication, PACS/RIS, Lab Equipment APIs
Agile & SDLC	Agile methodologies (Scrum, Kanban), and best practices across SDLC phases.

PROFESSIONAL EXPERIENCE

Client: VF Services
Role: Technical Architect / Senior Full Stack Developer
Duration: January 2023– Present
Project: Retail Management

Technologies: Python (Pandas, PySpark, NumPy), SQL, T-SQL, ASP.NET Core, C#, Entity Framework Core, REST APIs, SQL Server, Azure Cloud, Angular/React (frontend), Docker, Git, CI/CD

Project Description:

Developed and implemented a comprehensive Retail Management System for VF Services, a multi-branch retail company. The solution streamlined operations across inventory, sales, billing, and customer management. The project replaced legacy monolithic applications with a modern microservices-based architecture built on ASP.NET Core and deployed in Azure Cloud for scalability and performance.

Responsibilities:

- Modernized legacy ETL pipelines by converting SSIS jobs into Databricks notebooks and Python Pandas workflows, improving performance by 40%.
- Optimized SQL queries, indexes, and stored procedures to resolve data processing bottlenecks.
- Designed cloud-native data architecture with Azure Data Lake, Databricks, and AWS Glue/S3 for secure, analytics-ready storage.
- Developed Python scripts and Pandas pipelines for data cleaning, transformation, and reporting.
- Integrated AI/ML modules for automated transcription, summarization, and semantic search within ETL workflows.
- Collaborated with stakeholders to document application specifications, data dictionaries, and workflow designs.
- Designed and developed RESTful APIs in ASP.NET Core for core modules such as Product Catalog, Inventory, Billing, and Customer Management.
- Integrated Entity Framework Core with SQL Server for robust data persistence and optimized queries for high-volume transactions.
- Implemented Role-Based Security and Authentication using ASP.NET Identity and JWT tokens.
- Built order processing workflows supporting online and in-store purchases with integration to payment gateways.
- Developed reusable microservices for pricing, discounts, and loyalty programs to ensure consistent customer experience.
- Deployed services using Docker containers and set up CI/CD pipelines in Azure DevOps for automated builds and deployments.
- Designed Power BI dashboards to provide real-time insights into sales performance, inventory turnover, and customer trends.

Client: Advanced Integrated Systems
Role: Technical Architect / Senior Full Stack Developer
Duration: December 2021 – 2023
Product: Hospital Information Management System (HIMS)

Technologies: Python (Pandas, PySpark, NumPy), SQL, T-SQL, POWER BI, ASP.NET Core, .NET Core Web API, React, Flutter SQL Server, Azure, REST APIs, JWT Authentication, Azure DevOps

Description: Designed and developed a cloud-based HIMS platform to streamline hospital operations and patient care. Implemented modules for OPD/IPD management, billing, pharmacy, diagnostics, and inventory. Built using ASP.NET for the backend and SQL Server for centralized data management. Deployed the solution on Microsoft Azure with CI/CD ensuring scalability and high availability. Integrated role-based security, HL7/FHIR interfaces, and real-time reporting dashboards]

Responsibilities:

- Delivered enterprise-grade HIMS, LIMS, ERP, and retail platforms, leveraging .NET Core, React, and Node.js with Python-driven ETL and AI modules.
- Implemented Power BI dashboards and reports from SQL Server and Databricks data sources for operational insights.
- Led performance optimization for SQL/ETL jobs, identifying bottlenecks and implementing scalable solutions.
- Automated workflows and deployments via Azure DevOps, Docker, and Kubernetes, ensuring CI/CD compliance and enterprise readiness.
- Involved in the analysis, design, and development of HIMS product, focusing on Patient and Client Portals within Azure cloud environments.
- Led mobile app development and design across Android and iOS platforms using Flutter.
- Demonstrated strong expertise in healthcare product development, especially in Client and Patient portal design.
- Managed end-to-end product development including design of Web/Desktop/Cloud applications, databases, and core components.
- Provided leadership to teams (10–100+ members), overseeing architecture, backend services, and development operations.
- Actively contributed to hands-on coding using C#, ASP.NET Core, Python, Node.js, and Dart (Flutter).
- Designed and implemented secure, scalable RESTful APIs and backend services for patient data exchange.
- Integrated HL7 and FHIR standards for EMR/LIS interoperability with diagnostic platforms.
- AI-Driven Hospital Information Management System (HIMS)
- Automated patient intake with OCR from Aadhaar.
- Voice-based transcription system for doctor-patient interactions.
- Predictive analytics for diagnosis and patient risk scoring.
- Real-time Power BI dashboards and AI chatbots for operations.
- Enabled voice reporting and AI-based compliance tracking.
- Integrated Groq models for ultra-fast inference.
- Developed real-time Power BI dashboards integrated with Azure Synapse for hospital analytics.
- Led the integration of AI/ML models (Ollama, Azure OpenAI) for transcription, summarization, and diagnostics.
- Managed cloud infrastructure migration and designed secure deployment strategies.
- Oversaw the development of ETL processes using Azure Data Factory and Synapse Analytics.
- Directed SQL Server development including Data Warehousing with Fact Tables, Star Schema, and Snowflake design.
- Designed microservices architecture and contributed to its development and deployment.
- Developed and optimized database queries for SQL Server and Azure SQL.
- Integrated Aadhaar eKYC, Razorpay, lab APIs, and SMS gateways into healthcare applications.
- Built RBAC security, OAuth2/JWT authentication, and ensured compliance with best practices.
- Conducted code reviews, refactoring, and mentoring to uphold coding standards and quality.
- Collaborated with UI/UX teams to implement responsive frontends using Bootstrap, Blazor, Angular, and React.

Product: Laboratory Information Management System (SLIMS)
Technologies: ASP.NET Core, .NET Core Web API, Flutter, SQL Server, Azure, REST APIs, JWT Authentication, TFS, Azure DevOps

Description: A Laboratory Information Management System (LIMS) is a software solution designed to manage and streamline laboratory operations, including sample collection, test scheduling, workflow automation, result validation, report generation, and inventory control. The system enhances data accuracy, regulatory compliance, and operational efficiency by integrating with lab instruments.

Responsibilities:

- Involved in the analysis, design, and development LIMS product, focusing on Patient and Client Portals within Azure cloud environments.
- Led mobile app development and design across Android and iOS platforms using Flutter.
- Demonstrated strong expertise in healthcare product development, especially in Client and Patient portal design.
- Managed end-to-end product development including design of Web/Desktop/Cloud applications, databases, and core components.
- Provided leadership to teams (10–100+ members), overseeing architecture, backend services, and development operations.
- Actively contributed to hands-on coding using C#, ASP.NET Core, Python, Node.js, and Dart (Flutter).
- Designed and implemented secure, scalable RESTful APIs and backend services for patient data exchange.
- Integrated HL7 and FHIR standards for EMR/LIS interoperability with diagnostic platforms.
- Spearheaded CI/CD pipeline automation using Azure DevOps, GitHub Actions, and Jenkins.
- Developed real-time Power BI dashboards integrated with Azure Synapse for hospital analytics.
- Led the integration of AI/ML models (Ollama, Azure OpenAI) for transcription, summarization, and diagnostics.
- Managed cloud infrastructure migration and designed secure deployment strategies.
- Oversaw the development of ETL processes using Azure Data Factory and Synapse Analytics.
- Directed SQL Server development including Data Warehousing with Fact Tables, Star Schema, and Snowflake design.
- AI-Powered Laboratory Information Management System (LIMS)
- Summarized pathology reports with NLP and LLMs.
- Deployed HIMS product to Azure VMs using CI/CD pipelines with agile methodology.
- Participated in design and deployment of microservices-based cloud applications.
- Implemented Test-Driven Development (TDD) to ensure high-quality, maintainable code.
- Maintained microservices and application components using CI/CD and monitoring tools.
- Designed microservices architecture and contributed to its development and deployment.
- Developed and optimized database queries for SQL Server, MongoDB, and Azure SQL.
- Integrated Aadhaar eKYC, Razor pay, lab APIs, and SMS gateways into healthcare applications.
- Built RBAC security, OAuth2/JWT authentication, and ensured compliance with best practices.
- Conducted code reviews, refactoring, and mentoring to uphold coding standards and quality.
- Collaborated with UI/UX teams to implement responsive frontends using Bootstrap, Blazor, Angular, and React.
- Utilized Agile (Scrum/Kanban) methodologies throughout the development lifecycle.
- Analyzed requirements for cloud-native microservices and delivered scalable solutions.
- Led the design and implementation of SLIMS (Smart Laboratory Information Management System) to streamline laboratory operations across diagnostic centers.
- Designed and implemented lab workflows for sample collection, test lifecycle, result validation, and report delivery.

- Integrated lab equipment (biochemistry analyzers, hematology, etc.) using vendor-specific APIs and HL7 protocols.
- Developed inventory modules for reagent tracking, equipment calibration, and QC schedules.
- Built multi-step lab report approval workflows including technician verification and pathologist sign-off.
- Applied standard coding systems such as LOINC and ICD for standardized test catalog management.
- Ensured NABL compliance by implementing audit trails, document versioning, and quality control logs.
- Created TAT dashboards, workload distribution charts, and real-time operational analytics for lab heads.
- Enabled branch-wise lab operations through a centralized, cloud-enabled SLIMS platform with secure data sync.
- Integrated SLIMS with EMR/HIMS for real-time order entry, results push, and consolidated patient records.

Agentic AI Projects

AI Agent: MedScribe – Doctor-patient transcription assistant
Technologies: ASP.NET Core, SQL Server, Python, PostgreSQL, Whisper AI, Ollama, LLaMA, OpenAI, Groq

Description: AI MedScribe is an intelligent transcription assistant designed to capture and convert live doctor-patient conversations into structured medical notes in real time. Leveraging advanced speech recognition (Whisper AI) and large language models (OpenAI, LLaMA), the agent enables voice-based data entry with high accuracy and security. It integrates seamlessly with Electronic Health Record (EHR) systems to reduce clinical documentation time and streamline workflows. The system supports multi-language transcription, real-time clinical summaries, and AI-assisted auto-filling of diagnosis, prescriptions, and symptoms. By retrieving and summarizing patient history, it enhances clinical decision-making and improves overall care quality.

AI Agent: Patient Intake Agent – Aadhaar-based demographic pre-fill
Technologies: ASP.NET Core, SQL Server, Python, PostgreSQL, Ollama, LLaMA, OpenAI, Groq

Description: The Patient Intake Agent is an AI-powered assistant designed to streamline patient registration by extracting demographic and address details from Aadhaar card images using OCR and AI heuristics. It automatically populates patient forms, significantly reducing manual front-desk workload and improving data accuracy. The agent supports multilingual recognition, data normalization, and validation processes to ensure clean and verified input. It integrates seamlessly with existing registration systems and enhances the accuracy of insurance eligibility checks and billing pre-validation, making it a critical component in modernizing healthcare intake workflows.

AI Agent: Report Analyzer – Interprets diagnostic test results
Technologies: ASP.NET Core, SQL Server, Python, PostgreSQL, Ollama, LLaMA, OpenAI, Groq

Description: The Report Analyzer is an AI-driven agent designed to interpret diagnostic test results using Large Language Models (LLMs) and vector search techniques. It intelligently summarizes lab reports and flags anomalies based on predefined medical rules, supporting efficient analysis across pathology, radiology, and biochemistry domains. By suggesting possible next steps for medical professionals, it enhances clinical decision-making and significantly reduces report review turnaround time. The system also enforces compliance with diagnostic standards through integrated rule-based validation, ensuring both accuracy and regulatory alignment

AI Agent: Billing Assistant – Automates insurance and invoicing workflows
Technologies: ASP.NET Core, SQL Server, Python, PostgreSQL, Ollama, LLaMA, OpenAI, Groq

Description: An AI-driven agent that automates medical billing based on diagnosis, procedures, and coverage rules. It integrates with insurance APIs for real-time claim validation and reduces manual errors in submissions. The system generates itemized bills with ICD/CPT codes, detects anomalies, and syncs with EMR and accounting platforms.AI Agent: Ops Assistant – Staff scheduling based on usage trends

Environment: ASP.NET Core, SQL Server, Python, PostgreSQL, Ollama, LLaMA, OpenAI, Groq

Responsibilities for All Agentic AI Projects:

- Designed and developed API-driven AI agents for clinical and operational workflows in healthcare (e.g., transcription, intake, billing, and diagnostics).
- Integrated third-party LLM APIs (OpenAI, Groq-hosted models, LLaMA via Ollama) to deliver context-aware reasoning, text generation, and decision support.
- Consumed and orchestrated multiple AI services via RESTful APIs (e.g., Whisper AI for speech-to-text, Aadhaar OCR APIs, insurance claim APIs).
- Built middleware services in ASP.NET Core and Python to bridge between AI APIs and internal hospital systems (EMR, billing, registration, etc.).
- Applied prompt engineering and output parsing techniques to ensure consistent, structured data from generative APIs.
- Designed scalable agent pipelines to handle asynchronous API responses, real-time processing, and fallback logic.
- Enabled secure API communication with OAuth2, API key handling, and encrypted data transport (SSL/TLS).
- Developed microservices that expose internal APIs to frontend apps and other agents for modular and reusable AI functions.
- Used vector databases and search APIs (e.g., FAISS/Chroma) to implement semantic search and summarization in diagnostic agents.
- Logged and monitored API performance, errors, and response quality to ensure high reliability and traceability in production.
- Created retry, rate-limit handling, and failover mechanisms for robust interaction with external AI services.
- Documented all agent APIs using Swagger/OpenAPI for seamless integration by frontend and mobile teams.
- Collaborated with frontend and integration teams to design workflows that interact with AI agents through secure, well-defined endpoints.
- Optimized cost and latency of AI services by evaluating between local (Ollama) and cloud (Groq/OpenAI) API-based model deployments.

Client: **UHWI – University Hospital of West Indies**
Role: Technical Architect/ Senior Full Stack Developer
Duration: July 2018 – November 2021
Project: Enterprise Reporting & Interactive Dashboards using Power BI

Technologies: Power BI Desktop, Power BI Service, Power BI Gateway, SQL Server, Excel, OneDrive, DAX, Power Query, Azure SQL, REST APIs

Description: Designed and developed a variety of interactive dashboards and analytical reports using Power BI for multiple business functions including healthcare operations, finance, diagnostics, and sales. Leveraged Power BI Desktop for data modeling and visualization, and deployed reports to Power BI Service with scheduled data refresh using Power BI Gateway.

Responsibilities:

- Created rich, interactive dashboards in Power BI Desktop using DAX, slicers, bookmarks, and custom visuals.
- Built KPIs, trend analysis charts, heatmaps, and drill-downs tailored to business requirements.
- Data Integration:
- Connected to various data sources including SQL Server, Excel, and OneDrive-hosted files.
- Used Power Query for data transformation, cleaning, and shaping.
- Implemented complex joins, calculated columns, and dynamic measures using DAX.
- Published reports to Power BI Service and created structured workspaces for different departments.
- Set up row-level security (RLS) to manage data access for users based on roles.
- Configured Power BI Gateway (Standard and Personal) to enable real-time or scheduled data refresh.
- Set up refresh schedules for daily, hourly, or real-time updates depending on business needs.
- Monitored refresh history and configured alerts on failure.
- Optimized data models and queries to reduce load time and enhance user experience.
- Used aggregation tables, filter optimization, and incremental data loads where needed.

Client: NHF – National Health Fund -West Indies
Role: Senior Full Stack Developer
Duration: June 2014 – July 2018
Project: Customer & Vendor Engagement Platforms (Web & Mobile Apps)

Technologies: ASP.NET, Web API, SQL Server

Description: Led the end-to-end design and development of a modular platform comprising Customer Portal, Vendor Portal, and Mobile Apps for stakeholders such as customers, vendors, and staff. These solutions were part of a broader ERP ecosystem, focusing on digital transformation in vendor and customer engagement.

Responsibilities:

- Requirement Analysis & Planning:
- Collaborated with stakeholders to gather functional and non-functional requirements.
- Defined technical architecture and microservices layout for scalability and maintainability.
- Full Stack Development:
- Developed backend services using ASP.NET Core Web API with layered architecture and JWT-based authentication.
- Built responsive and role-based web UIs using Angular/React.
- Developed cross-platform mobile apps using Flutter.
- Managed OAuth 2.0 / JWT-based secure API access across all platforms.
- Deployed applications on Azure Cloud using CI/CD pipelines via Azure DevOps.
- Managed database schema changes using Entity Framework Code First and migrations.
- Managed deployment and version control of mobile apps on both Google Play and Apple App Store.

Client: Prime Healthcare
Role: Full Stack Developer
Duration: March 2007 – May 2014
Project: Digital Experience Platform for Customers & Vendors (Web & Mobile)

Technologies: ASP.NET, Web API, SQL Server

Description: Led the full-cycle development of a modular digital engagement platform for Prime Helathcare, covering Customer Portals, Vendor Portals, and cross-platform Mobile Apps. The platform aimed to

streamline interactions across the supply chain, improve vendor on boarding, and enhance customer service as part of ERP transformation initiative.

Responsibilities:

- Collaborated with stakeholders to gather functional and non-functional requirements.
- Defined technical architecture for scalability and maintainability.
- Developed backend services using ASP.NET Web API with layered architecture and JWT-based authentication.

Education

- Master of Science in Information Technology (MSc-IT): Kuvempu University, India.
- Bachelor's Degree: Andhra University, India.
- CIC (Certificate in Computing): Indira Gandhi Open University (IGNOU), India.