# PROFESSIONAL SUMMARY

**Senior Staff Solution Architect and Engineering Leader** with 17+ years of proven experience architecting and scaling enterprise data infrastructure, AI/ML platforms, and distributed systems across Fortune 500 organizations. Currently leading a **high-performing team of 23 engineers** in delivering a **$60M digital transformation program**, with deep expertise in building contract-driven data pipelines, **Agentic AI Platforms**, implementing data governance frameworks, and establishing self-service data platforms that support 180+ developers across global operations.

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| **Proven track record in:**   * **Data Platform Engineering**: Architected distributed inference systems with 20 GPU clusters, built comprehensive data ingestion pipelines processing diverse data formats (documents, real-time streams, multi-modal content), and designed scalable vector databases for **AI-powered search** and **retrieval.** * **Governance & Self-Service**: Established enterprise-wide technical governance frameworks, founded architectural review boards overseeing 8+ mission-critical systems, and built self-service platforms enabling developer productivity at scale. * **ML Infrastructure & Operations**: Designed end-to-end MLOps pipelines with model registries, feature stores, and automated deployment workflows; integrated MLFlow, model monitoring, and AI inference platforms supporting real-time decision-making systems. * **Enterprise Integration**: Led complex system integrations across heterogeneous environments, implemented event-driven architectures with Apache Kafka, and built API-first platforms with comprehensive security, monitoring, and observability patterns.   **Leadership Excellence**: Successfully managed cross-functional engineering teams across distributed locations (US, EU, India), drove architectural decisions for enterprise-scale applications, and delivered measurable business impact including $1M+ operational cost savings and 40% efficiency improvements through data-driven automation.  **AWS Certified Solutions Architect** specializing in cloud-native data platforms, microservices architecture, and AI-enabled infrastructure that transforms traditional business operations into intelligent, automated, and scalable digital  ecosystems.  **TECHNICAL EXPERTISE**  **AI/ML & Analytics**   * Langchain, LangGraph | multi-model LLMs | Vector Databases (Chromadb, FAISS) | Real-time Analytics | Predictive Modeling | NeMo framework | Triton Inference Server | GPU-accelerated platforms   **Data Platform Technologies**   * Apache Kafka, Apache Spark | Apache Airflow, Data Pipeline Orchestration | Apache Iceberg, Delta Lake |Data Transformation | TensorRT   **ML Infrastructure & Feature Stores**   * MLFlow, Model Registry | Feast Feature Store | AWS SageMaker, AWS Bedrock | Model Monitoring | A/B Testing Frameworks | PyTorch | Model Quantization   **Cloud & Container Orchestration**   * AWS Cloud Services | Kubernetes, Docker | Terraform, Infrastructure as Code | Jenkins CI/CD | Microservices Architecture   **Data Storage & Processing**   * MongoDB, PostgreSQL | Oracle 23AI | Redis Caching | Distributed Computing | Stream Processing   **Programming & Frameworks**   * Python, JavaScript | Django, FastAPI | React, React Native | Node.js | PL/SQL   **Enterprise Integration**   * APIGEE API Management | Event-Driven Architecture | Enterprise Security | Observability (Dynatrace) |

# Work Experience

**GE HealthCare, Sr Staff Software Architect (May 2018 – Present)**

**Head of Architecture Services of Tomorrow (Jan 2022 – Present)**

Leading the flagship **Services of Tomorrow (SOT)** initiative—a **$60M enterprise-wide digital transformation program** architecting revolutionary AI-driven solutions across **three strategic verticals**: Customer Experience, Field Operations, and Call Centre operations. **Managing a high-performing team of 23 professionals** (Developers, Architects, and QA Engineers) to deliver next-generation healthcare service experiences that redefine industry standards for customers globally while fundamentally transforming field engineer experiences through cutting-edge AI automation, intelligent workflow optimization, and predictive service delivery models.

**Enterprise Data Platform Initiatives**

**RADGeni – Enterprise AI/ML platform (*Rapid Application Development using Gen AI)***

* **Architected and deployed enterprise-grade distributed AI inference platform** with multi-server architecture spanning 5 compute nodes and 20 NVIDIA L40 GPUs, implementing containerized model serving LLMs(**Qwen3**, **DeepSeek-R1**, **Gemma3**, **DeepCoder**) for scalable and diverse AI workloads, load balancing, and auto-scaling capabilities to support diverse LLM workloads with high availability and fault tolerance.
* **VLLM based inference serving with dynamic loading for adapters created** for code repositories, establishing automated ETL workflows that process, version, and catalogue data from 30+ GitHub repositories with code validation, and metadata management for enterprise-scale code intelligence.
* **Built scalable vector database infrastructure** with optimized embedding storage and retrieval systems, implementing semantic search capabilities and real-time indexing for AI-powered code discovery across heterogeneous data sources. Built a secure web interface and custom VS Code extension, compliant with strict security standards.
* **Implemented MLOps foundation with model lifecycle management**, including **fine-tuning** **pipelines**, **Synthetic Data generation** and **model versioning**, **Evaluation** and **performance monitoring** that enabled self-service AI capabilities for **180+ developers.**

**MYWORKSHOP – Gen AI Based Multimodal File Processing and Intelligence Platform**

* **Architected scalable enterprise data ingestion platform** supporting heterogeneous document formats (Word, PDF, Excel, Images) with automated content extraction, format standardization, and schema validation pipelines processing unstructured data at scale with 96.5% accuracy.
* **Engineered comprehensive ETL pipeline architecture** integrating advanced OCR engines, multimodal embedding generation, and intelligent document classification workflows with automated data quality checks and error handling.
* **Implemented enterprise-grade data governance framework** with automated metadata extraction, document lineage tracking, content classification, and audit trails, ensuring compliance while enabling self-service document intelligence capabilities.

**IFSS – Intelligent Field Service Scheduler**

* **Architected comprehensive real-time optimization platform** with event-driven architecture processing 12k+ scheduling events daily, leveraging streaming data pipelines, in-memory computing, and distributed algorithms for dynamic resource allocation.
* **Engineered scalable multi-dimensional data processing engine** with real-time analytics capabilities, processing heterogeneous data streams through optimized ETL pipelines and real-time feature engineering including Field Engineer and customer Geo Location.
* **Built enterprise-grade event streaming infrastructure** with fault-tolerant messaging patterns, delivery guarantees, and bidirectional data synchronization across distributed systems.
* **Achieved 87% touchless automation rate** through sophisticated rule engines, real-time data validation, and automated workflow orchestration maintaining data quality at enterprise scale.

**Customer Experience Transformation**

* **AI-Powered Self-Service**: Deployed RAG-enabled chatbots on MyGEHealthcare.com to automate service request creation and enable customer self-resolution, reducing processing time.
* **Proactive System Monitoring**: Building automated log monitoring to generate preventive maintenance and change requests, significantly improving system uptime.
* **Real-Time Call Support**: Integrated automated issue summarization for call center agents, decreasing call handling time.

**Field Operations Optimization (PM Planners, Dispatchers, Remote Service Engineers, Field Engineers)**

* **Delivered mobile text and audio summaries** that equipped field engineers with critical pre-visit insights, enhancing service delivery and customer engagement.
* **Designed and Developed AI-powered dispatching and tracking improvements**, identifying lean optimization opportunities that eliminated operational inefficiencies with 12+ optimization factors.
* **Built AI-powered debriefing system** with secure audio-to-text conversion and offline storage capabilities, ensuring data privacy compliance while maintaining full functionality across online and offline environments with **95% field engineer adoption rate**.

**Call Center Automation**

* **Deploying Sierra AI agentic platform on Genesys**, automating 37% of inbound calls across 11 languages and 19% of outbound calls, delivering significant operational cost reductions.
* **Integrating Sierra AI voice system with call center infrastructure and CRM**, enabling seamless omnichannel expansion across chat and digital touchpoints.
* **Engineered end-to-end automation workflows** from call reception through resolution and intelligent routing, maximizing call center efficiency.

**FX2: Cross-Platform Mobile App for Field Service (Web, iOS, Android)**

* Developed a cross-platform app enabling field engineers and dispatchers to create corrective repair activities, manage schedules, and order parts. Integrating the system with Salesforce, Siebel and Oracle ERP.
* Implemented features for viewing and managing a complete monthly calendar, supporting both offline and online modes. Build on React.js, React Native, Mongo and Node.

**MYINSTALL: Cross-Platform Installation Workflow and Project Management App**

* Developed a cross-platform app using React, React Native, PostgreSQL, and Node.js to manage the entire lifecycle of equipment installation, from order creation to parts delivery.
* Implemented features for order creation, parts delivery tracking, pallet scanning, and raising delivery disputes.

**Discover Project - *Digital Health Service Assistant for GEHC modalities.***

* Built **LLM-as-a-Service** apps using Amazon Bedrock (GPT-4, Claude Sonnet 3.7, Llama 3.3, Llama 3.2-Vision) with Llama 3.2 for context summarization.
* Developed web-based assistant with real-time updates, Gen-AI support, and intelligent search using React (Next.js), FastAPI on AWS ECS Fargate, and MongoDB.
* Designed scalable, HIPAA-compliant architecture with data partitioning, load balancing, and multi-level caching.
* Enhanced query performance via medical entity recognition, context-aware retrieval, semantic caching, and hybrid graph-vector search.

**Previous Designation (May 2018 – Jan 2022)**

Finance Technology and Customer Digital Integration Architect:

**Architecture and Technical Leadership:**

* **Designed and implemented enterprise-grade cloud-native Punchout architecture** leveraging APIGEE API Management platform with comprehensive security patterns including OAuth 2.0, JWT tokens and rate limiting.
* **Architected event-driven microservices catalog system** utilizing Apache Kafka for real-time event streaming, implementing RESTful API design patterns with Redis caching layers, data partitioning strategies, and circuit breaker patterns for high availability and performance optimization.
* **Established enterprise-wide technical governance framework** defining architectural standards, design patterns, and reference architectures for process automation initiatives including RPA, workflow engines, and intelligent document processing solutions across multiple business domains.
* **Founded and led architectural review board (ARB)** overseeing technical design decisions for 8 mission-critical finance systems, establishing architecture assessment criteria, technology stack evaluations, and cross-system integration standards to ensure scalability and maintainability.
* **Engineered secure cloud-native Punchout integration platform** utilizing APIGEE edge services with advanced security frameworks including API key management, IP whitelisting, payload encryption, and comprehensive logging/monitoring for supplier catalog connectivity.
* **Architected intelligent machine learning pipeline** for automated document processing incorporating OCR engines (Google Vision API), natural language processing for data extraction, and automated order creation workflows with confidence scoring and human-in-the-loop validation mechanisms.
* **Designed comprehensive system architecture for real-time cash pooling solution** implementing event-sourcing patterns, CQRS architecture, real-time transaction processing with Apache Kafka, automated reconciliation engines, and multi-currency settlement algorithms with sub-second processing capabilities and audit trail compliance.

**Solutions Architecture for Finance Systems:**

* **Architected and designed** global deployment framework for automated Oracle Cash Management module across multiple regions and business units.
* **Engineered technical solutions** to enhance auto reconciliation rates through algorithm optimization and process reengineering to streamline reconciliation workflows.
* **Designed scalable architecture** for multi-currency cash flow forecasting system supporting multiple time periods and real-time data processing.
* **Developed predictive modelling framework** leveraging both historical transaction patterns and future transaction pipelines for accurate forecasting.
* **Architected end-to-end automation platform** for bank reconciliation processes, integrating with multiple banking APIs and internal financial systems.
* **Designed and architected comprehensive fuzzy logic matching engine** for intelligent bank reconciliation, implementing machine learning algorithms for pattern recognition and exception handling.
* **Led technical architecture and system design** for global lockbox implementation, ensuring scalability, security, and integration with existing financial infrastructure. Install Finance: Developed event driven architecture for cost reconciliation systems with real-time data processing.
* **Designed comprehensive technical architecture** from system conceptualization to global deployment framework supporting 61+ countries with region-specific compliance configurations.
* **Architected automated warranty depreciation engine** with complex calculation algorithms, multi-tier approval workflows, and real-time processing capabilities.
* **Engineered warranty matrix computational framework** incorporating machine learning models for accurate cost forecasting, trend analysis, and predictive planning algorithms.
* **Designed technical solution architecture** for MVP iterations and quarterly release pipelines with containerized deployment and CI/CD automation.
* **Architected interactive warranty dashboard platform** with automated reconciliation engines, data visualization frameworks, and self-service analytics capabilities.
* **Architected and deployed** comprehensive eInvoicing technical solutions across India, Colombia, Chile, Peru, Egypt, Korea & Bangladesh with country-specific integration patterns and compliance frameworks.
* **Designed regulatory compliance architecture** ensuring automated adherence to regional legal requirements through configurable rule engines, validation frameworks, and audit trail systems.

**Awards & Recognition:**

* CIO Spotlight award for last 4 years (2019, 2020, 2023 and 2024) for various engineering engagements.
* CFO Heartbeat award for lean transformation initiatives in 2020.
* Founder for 3 GEHC Clubs **AI Innovator Guild**, **DT Tech café** & **DT Shodhnum** (Training arm for DT Org).

**IBM India - Senior Technical Lead (Oct 2014 – May 2018)**

**Enterprise Data Platform Leadership**: Led critical digital transformation projects for Fortune 500 clients including Honda Motors India and Citibank Global

* **Led enterprise system implementations** including GST compliance and system redesigns for Honda Motors India
* **Managed cross-functional teams** of up to 10 members across multiple data integration projects
* **Spearheaded integration** of revenue reconciliation tools with billing, accounts receivable, and claim management systems.
* **Directed Procure-to-Pay lifecycle re-engineering** for Citibank Global, enhancing supply chain data flows and efficiency.
* **Led 24/7 production support operations** ensuring continuous application availability in global banking environment.

**Fujitsu Consulting India Ltd. - Technical Lead (July 2008 – Oct 2014)**

* **Enterprise Data Integration & Migration:**
* **Led multiple Oracle EBS implementations** and upgrades across manufacturing, finance, and SCM domains
* **Designed complex data migration strategies** and system integrations including legacy system transitions
* **Developed custom data processing components** using PL/SQL, OAF, and XML Publisher for enterprise reporting
* **Implemented automated approval workflows** and account generators optimizing business process efficiency.

# CERTIFICATION:

* AWS Certified Solutions Architect – Associate

# EDUCATION AND PROFESSIONAL DEVELOPMENT

* B. Tech. in Computer Science Engineering (2004 - 2008) from Bhilai Institute of Technology, Durg.

**ADDITIONAL INFORMATION**

**Global Leadership & Cross-Cultural Expertise** Seasoned technology leader with extensive international experience across key global markets including Singapore, Dubai, USA, Bengaluru, and Noida. Successfully managed distributed engineering teams spanning US, European, and Indian markets, demonstrating exceptional cross-cultural collaboration and remote team leadership capabilities.

**Enterprise-Scale Impact & Digital Transformation** Architected and delivered mission-critical enterprise solutions processing millions of daily transactions for global customer bases. Drove comprehensive digital transformation initiatives across diverse industries including healthcare, finance, and manufacturing, ensuring scalable, high-performance systems that meet international compliance and quality standards.

**Innovation Catalyst & Community Builder** Founded and led multiple technology communities and comprehensive training programs, cultivating a culture of innovation and continuous learning. Mentored and developed 180+ developers and engineers, establishing knowledge-sharing frameworks that accelerated team capability development and technical excellence across global operations.