

SUMMARY

I have 15+ years of industry experience in development of high impact data and science services, including 6 years managing highly performant dev teams. My expertise lies in designing and developing secure distributed data platforms that drive reliability and adoption. I also built AI/ML services ranging from knowledge bases and semantic search to agentic applications and AI evaluation frameworks with deep emphasis on security. My leadership style emphasizes collaboration, agility and empowerment, enabling teams to scale while fostering innovation and operational excellence.

WORK EXPERIENCE

AMAZON WEB SERVICES | Engineering Manager

Mar 2017 – Present

Launched foundational AI/ML services for AWS Training and Certification Business

- **Content Analyzer [AI]:** Service that ingests AWS training content + AWS service Docs in any format and uses Natural Language Processing [NLP] to generate content data along with metadata and taxonomy – improving metadata reliability by 28.4%.
- **Knowledge Base [AI]:** Service that breaks down learning content to lowest granularity mapping relationships and hierarchies between the reusable learning components. Uses a combination of Graph and RAG for domain specific knowledge and taxonomy.
- **Semantic Search [AI]:** Service that uses Knowledge Base to refine content search with summarization by Large Language Models (LLM) – foundation of dynamic content generation for T&C content management services reducing time to delivery by 45%.
- **Content Evaluation [AI]:** Service that evaluates quality of generated text content by LLMs with respect to AWS standards for compliance, styling and completeness by using LLM as a judge.
- **Recommendation Engine [AI]:** Service that provides training recommendations using multiple models [Association Rule Mining (ARM) + Amazon Personalize], improving learner engagement by 12%
- **Feedback Sentiment Analysis [AI]:** Service that collects multilingual customer feedback across multiple formats and uses NLP to generate feedback sentiment metrics like CSAT and NPS. Powers T&C customer facing applications completing feedback loop.
- **Fraud Analytics [AI]:** Service that performs image analysis of candidate photos and identity details to detect impersonation, flag exam centers, and invalidate fraudulent certifications, strengthening AWS Certification integrity.
- **Data Sense [AI]:** Service that uses agentic framework to query data-lake metadata stored in knowledge bases and execute queries in Athena to generate insights using natural language as an input. Development of this service is currently in progress.

Designed, Developed, Evolved and Optimized data platform for AWS Training and Certification Business

- **Data Ingestion Frameworks [DATA]:** Standardized data ingestion Frameworks leveraging CDK constructs across multiple data formats [file-based, streaming, NoSQL, and relational systems], reducing onboarding time for source teams by 60%.
- **Lake Architecture Migration [DATA]:** Migrated data-warehouse platform to a lake-based architecture, decoupling compute from storage thereby eliminating shared inefficiencies reducing operational overhead by 20%.
- **Synthetic Data Management [DATA]:** Developed framework to redact sensitive information and generate consistent identifiers, ensuring safe, scalable test datasets in data mesh for analytics and ML use cases while maintaining existing relationships.
- **Authentication & Authorization [DATA]:** Migrated data-platform infrastructure [Redshift, Tableau, and SFTP servers] to Single Sign-On improving security posture. Used OIDC protocol for AuthN and built custom LDAP-based authorization plugins for AuthZ.

Developed and nurtured a high-performance team

- Scaled team from 1 to 12, building a high-performing group of data engineers, ML engineers, and program managers.
- Built an innovative, growth-focused culture in the team driving top retention with a median tenure of 4 years.
- Advanced careers through promotions and performance management, sustaining a high-performance culture.
- Emphasized spec-driven development focusing on operations in design and build thereby, keeping tech-debt under 10%.

MICROSOFT [MAQ Software] | Technical Program Manager

Mar 2016 – Feb 2017

- Designed and delivered near real-time business analytics for hundreds of Microsoft Stores in North America, enabling regional campaign intelligence and accelerating revenue decisions during peak holidays, driving a 4% sales uplift.

Societe Generale (Bangalore) | Sr. Business Intelligence Engineer

May 2013 – May 2015

- Developed an Audit Report application that streamlined back-office reconciliation by providing accurate summary-level insights, reducing errors and financial closes by 8%.

TATA CONSULTANCY SERVICES | Business Intelligence Developer

Jul 2008 – March 2012

- Developed Order Management Application (Datamart) for all orders, sales and backlogs of GE Healthcare and its subsidiaries at global level from ERP systems which is used by top level management for quarterly reporting purposes.

SKILLS & EDUCATION

- **Certifications:** [AWS Certified](#) [Developer + Solutions Architect + Data Engineer + Machine Learning] Associate, Big Data Specialty
- **Languages & Frameworks:** Python, SQL, Typescript | GraphQL, REST, CDK, PySpark, FASTAPI, Iceberg, Hudi,
- **Generative AI:** Retrieval Augment Generate (RAG), Agentic AI, AI Evaluation, Model Context Protocol, A2A, Amazon Strands
- **Databases:** Relational, NoSQL [Dynamodb, OpenSearch, Neptune], Columnar [Redshift, Datalakes], Streaming [Kinesis]
- **Master's in information systems:** University of Washington **2016**
- **Bachelor of Technology (Mechanical Engineering):** VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY **2008**