Ethiraj Krishnamanaidu

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Experienced Data Strategist and Hands-On Leader

Results-oriented data professional with 20+ years of experience driving cloud & data strategy, architecture, and engineering excellence. Proven ability to align data initiatives with business goals, build high-performing teams, and deliver impactful data products. Adept at leveraging cutting-edge technologies (AI/ML, cloud platforms) to solve complex business challenges and drive innovation.

Transformed data engineering practices at MSCI, resulting in a 20% improvement in data quality and a 15% reduction in time-to-market for new data products.

Introduced and implemented new technologies, tools, and processes such as Data Modeling, ADR process, Airflow, DBT, Great Expectations, Dremio, and Collibra Catalog to streamline development and enhance data quality. Additionally, centralized documentation on a wiki page to improve knowledge sharing and collaboration.

Spearheaded development of the OSDU Data Platform's Reference Architecture in collaboration with oil & gas and energy industry executives, **resulting in an open-source**, **multi-cloud platform available for public use**

Employment

MSCI, Houston, TX — Director/Data Strategy Leader

April 2022 - PRESENT

- Collaborated with senior management to shape and implement data strategy, driving innovation and adoption of cutting-edge technologies.
- Established and executed an efficient and cost-effective data strategy for ESG and Climate, ensuring alignment with organizational goals. This strategy was later adopted across the organization due to its success.
- Incorporated software engineering practices into data teams, resulting in notable improvements in data quality.
- Drove data engineering excellence, overseeing teams to deliver high-quality data products consistently.
- Spearheaded the design and implementation of a next-generation data platform based on Lakehouse and Data Mesh principles, improving data accessibility and scalability by 25%
- Designed and led multiple teams in the development of end-to-end data pipelines, including data ingestion, data modeling, data governance, using Airflow, DBT, Databricks, Great Expectations,

DataHub, Dremio, Collibra, Snowflake, Azure and Google Cloud Platform.

- Hands-on experience developing structured and unstructured AI/LLM applications(MVP) using LangChain, OpenAI, PaLM2, VertxAI.
- Fostered strong partnerships with internal and external stakeholders communicating project status, activities, and achievements.
- Collaborated closely with MSCI product, research, program management, and engineering teams to ensure the platform meets diverse organizational needs and communicates project status, activities, and achievements..

Schlumberger, Houston, TX - Lead Architect/Delivery Lead

April 2018 - April 2022

- Spearheaded development of <u>OSDU</u> Data Platform's Reference Architecture in collaboration with oil & gas and energy industry executives.
- Represented Schlumberger at the OSDU Forum as the enterprise architect.
- Coached and collaborated with architects and engineers, ensuring success of <u>OSDU Data Platform</u> and Schlumberger Digital platform.
- Acted as a strategic liaison between Schlumberger's product teams, major cloud service providers (GCP, Azure, AWS, IBM), and the Open Group(Shell, BP, Exon,etc) to create an open data ecosystem.
- Led a global, cross-functional engineering team in building a multi-cloud OSDU Data Platform.
- Managed the development of multi cloud <u>CI/CD</u> pipeline.
- Developed Service Provider Interfaces (<u>SPIs</u>) for OSDU Data Platform, abstracting service implementation from cloud providers.
- Established open-source policy, governance, and GitLab project structure, onboarding dozens of developers.
- Presented at multiple OSDU conferences, reaching over 200 attendees both online and in person.
- Designed and implemented a common notification and task management system (NTM) for Schlumberger Digital teams.
- Implemented GCP cost optimization processes, resulting in annual savings of \$170k.
- Hands on experience developing data pipelines using GCP BigQuery, Dataflow and Pub/Sub
- Hands on experience designing and creating an annotated training data set and creating a machine learning model (Google AutoML). Implemented four data variants to determine how data affects performance.
- Hands-on experience with Docker, K8S, GCP services (GLB, GKE, Datastore, Redis, Cloud Functions, Stackdriver, Apigee gateway), Spring boot, Airflow, Elasticsearch to demonstrate the relevant benefits

Major Accomplishments

- My contributions have been recognized by Schlumberger, the CSP's (GCP, Azure, AWS and IBM) and the OSDU Forum. Awarded the most valuable contributor award to the initial multi-platform OSDU Data Platform release.
- I am one of the inventors of Notification and Task Management(NTM), for which US Patent PCT/US20/15315 is pending.

UnitedHealth Group, Greenville, SC — Cloud Application Architect

Jan 2017-April 2018

- Establish a cloud strategy and an adoption process for moving to the cloud.
- Led and consulted with application teams to migrate monolithic applications to microservices architecture so the applications can be deployed and auto-scaled independently.
- Automated the best practices across the development and DevOps spectrum, reducing ramp up time from weeks to five minutes.
- Developed a reference architecture and a reference application using cloud-native patterns.
- Designed and developed Jumpstart REST APIs that allow users to instantly build infrastructure and services (GitHub, Artifactory, Jenkins Pipeline, and PaaS runtime).
- Developed APIs to integrate with Kubernetes APIs in order to automate the creation, deployment, and management of Docker containers within OpenShift/Kubernetes environments.
- Responsible for coaching and mentoring application teams regarding Cloud-Native Architecture and Patterns.
- Hands-on experience developing POC's using Java/J2EE, AngularJS, Sprint Boot, Docker, Kubernetes, ELK, Splunk, Jenkins, CI/CD, OpenShift Enterprise, IaaS, PaaS, SaaS, Pivotal Cloud Foundry to demonstrate the relevant benefits.
- Created reusable machine learning Docker image with Spark, Scala, Condo Python, TensorFlow and H2O for UHG hackathon.

Essendant, Buffalo, NY — SOA Lead/Architect

Aug 2009-Mar 2016

- Responsible for SOA, API and Cloud architecture. Along with enterprise architects on the team, provide architectural guidance to the IT processes.
- Architected and managed the delivery of repeatable solutions for B2B and internal applications.
- Designed and developed agnostic services to achieve a high level of re-usability.
- Initiated and migrated monolithic application into microservices using emerging technology by carefully applying twelve-factor methodology.
- Led and managed cross-functional teams, where team members are not direct reports.
- Proof-of-concept in AWS using EC2, VPC, S3, Route53, Auto-scaling, and RDS.
- Improved performance (200ms) by leading a team, resulting in greater service level performance for both B2B and Internal application.
- Managed and delivered all aspects of SOA/ESB Integration projects on-time under budget with a small team in-spite of various challenges.

Multiple Companies, Various locations

Aug 2004 -Mar 2009

- Designed and developed reusable web service using Java, J2EE, spring, Hibernate, Apache Struts.
- Designed and managed the delivery of Enterprise Application Integration (EAI) for GSA service portal to backend Inventory system.
- JVM management & tuning, performance testing and memory leak testing using Jprobe.
- database modeling and database development using Oracle9i.

EDUCATION

University of Madras, Chennai, India — Masters - May 2005

Master of Computer Application(MCA)

University of Madras, Chennai, India — Bachelor - May 2001

Bachelor of Science(B.S) Major in Mathematics.

CORE COMPETENCIES AND CERTIFICATION

- Google Professional Cloud Architect, Issued Feb 2022
- Certified Kubernetes Application Developer(CKAD), Issued Sep 2021
- Al Product Manager Nanodegree Program, Issued Dec 2020.
- AWS Certified Solutions Architect, Issued Mar 2016.
- IBM Certified Solution Advisor, Issued Feb 2016.
- Sun Certified Java Programmer March 2010 and Certified SOA Architect, Issued March 2011