ETHIRAJ KRISHNAMANAIDU

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A technology leader with over 20 years' experience developing, deploying, and designing n-tier distributed, transactional, and scalable Internet/Intranet applications. Architecting and designing applications and infrastructure that efficiently power cloud environments. Migrated monolithic applications to microservices using the 12-factor methodology and emerging technology.

EMPLOYMENT

Lead Architect/Delivery Lead

Schlumberger - Houston, TX

April 2018 – till date

- Developing <u>OSDU</u> Data Platform's Reference Architecture in collaboration with energy industry executives. I
 represent Schlumberger at the OSDU Forum as an enterprise architect.
- Coaching and collaborating with architects and engineers to make the <u>OSDU Data Platform</u> and Schlumberger Digital platform successful.
- The liaison between Schlumberger's product teams, cloud service providers (GCP, Azure, AWS, and IBM), and the Open Group to create an open data ecosystem
- Leading a global, cross-functional, multi-organizational, distributed engineering team to build the data platform.
- Managed the development of a data platform that runs on all major clouds (GCP, Azure, AWS, and IBM). In open source, pioneered the first multicloud <u>CI/CD</u> pipeline.
- Developed Service Provider Interfaces (<u>SPIs</u>) for OSDU data platform to abstract service implementation from cloud providers.
- The **first contributor** to set up open-source policy, governance, and the structure of a GitLab project, including the onboarding of 10s of developers.
- Presenter at multiple OSDU conferences with more than 200 attendees, both online and in person.
- Designed and implemented a **common notification and task management system** (NTM) for the SLB Digital teams.
- Implemented GCP cost optimization process resulted in 170k annually savings.
- Understanding of data analytics technology(Hadoop, Data warehouses, data lake, data lakehouse, data mesh, ETL and ELT).
- 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.

- 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.

SOA Lead/Architect

Essendant- Buffalo, NY

Jun 2009 - Dec 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.
- Designed and developed multiple mediations, reusable sub flows using web service (SOAP, REST, and XML/XSLT), MQ, SCA imports and export.
- 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 small team inspite of various challenges.
- Expert level knowledge and hands on experience with the IBM WebSphere suite of middleware products, (WebSphere Application Server, WebSphere Process Server, WebSphere Enterprise Service Bus, WebSphere Message Broker/IIB, DataPower, MQ Series, WebSphere Service Registry and Repository).
- Knowledge and understanding of SoaML and TOGAF.

- 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.

Programmer Analyst

Nutech, Stanford, CT

Mar 2006 - Aug 2006

- Responsible for design and development of the J2EE application using Struts.
- Developed Simulator using Java and XML parsers.
- Developed JSP, Servlets for the application.
- Created test case generation tool which creates random XML docs from XML Schema.
- Developed PERL SCRIPT for reporting in Linux.
- Involved in Integration Testing and Functional testing for VIP and POE.

Software Engineer

HP-Bangalore, INDIA

Jun 2004 - Jan 2006

- Responsible to extract the technical requirements from use cases and converting them into HLD.
- Designed and developed core classes and API for the application using Struts and common reusable component.
- Implemented design patterns Service Locator, Business Delegate, Session Facade, DAO, and Value Object. Responsible for Integration of Struts and Spring Framework.

CORE COMPETENCIES AND CERTFICATION

- 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.
- Certified SOA Architect, Issued March 2015.
- Sun Certified Java Programmer March 2010.

EDUCATION & WORK STATUS

Chennai, INDIA

University of Madras

- Master of Computer Application, May 2005
- B.S. in Mathematics, May 2001.