ETHIRAJ KRISHNAMANAIDU

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A technology leader with over 18 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 application to microservices using emerging technology and twelve-factor methodology.

EMPLOYMENT

Cloud Architect/Delivery Lead

Schlumberger - Houston, TX

April 2018 – till date

- Collaborating with energy industry leaders to define <u>OSDU</u> Data Platform's architecture. I represent Schlumberger at the OSDU Forum as one of the enterprise architects.
- Currently building an open source, standards-based <u>OSDU Data Platform</u> aimed at stimulating innovation, removing data silos, and accelerating the development of emerging digital solutions within the energy industry.
- Partnering with architects and coaching them to ensure the success of the OSDU Data Platform and Schlumberger Digital platform.
- The liaison between Schlumberger product teams, multiple cloud service providers (Google, Microsoft, AWS, and IBM), and the Open Group to open source the data ecosystem.
- Designed and led cloud engineers to build data platform that runs on all major clouds (GCP, Azure, AWS and IBM). Pioneered first mulit-cloud <u>CI/CD</u> pipelines in open source.
- The first contributor to establish open source policy, governance, and a GitLab project structure, including onboarding 100s of developers. Presented in multiple OSDU conferences (200+ attendees), both online and in person.
- Developed the Service Provider Interface (SPI) and led a multi-organizational team that refactored the data platform.
- Designed and implemented common notification and task management system (5+ REST APIs) for DELFI
 applications.
- Implemented GCP cloud cost optimization process resulted in 170k annually savings.
- Designed a solution using Azure B2C to simplify the federation process between customers and the Schlumberger DELFI platform.
- 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, Pub/Sub, Cloud Functions, Bigquery, 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 in 2020.
- I am one of the inventors of Notification and Task Management(NTM), for which US Patent <u>PCT/US20/15315</u> 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, 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

- Al Product Manager Nanodegree Program, Dec 31st, 2020.
- AWS Certified Solutions Architect (2016) and Certified SOA Architect (2014).
- SOA, Microservice architecture, Docker and Kubernetes.

EDUCATION & WORK STATUS

Chennai, INDIA

University of Madras

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