CHANDRA KISHORE REDDY GURRAM

Education

Masters in Computer Science, Arizona State University, Tempe, AZ, USA (Grade: 4.1/4.0) (August 2023 - May 2025)
Masters in Software Engineering, VIT, Vellore, India (GPA 8.46/10.00) (August 2017 - May 2022)

Technical Skills

Languages: Java, JavaScript, Python, GO, SQL, C#, C, C++, Matlab, HTML, CSS, Bash

Frameworks: Spring Boot, Spring Cloud, Maven, JUnit, TestNG, React.js, Node.js, Vue.js, Angular.js, Express.js, Next.js, axios, Windows Forms, ADO.NET, ASP.NET, Bootstrap, Robot Framework.

Tools and Technologies: AWS SQS, AWS Lambda, AWS ECR, AWS S3, MySQL, PostgreSQL, MongoDB, Hadoop, Spark, Neo4j, Kafka, Kibana, Docker, Git, Kubernetes, Jenkins, JIRA, Artifactory, Selenium.

Software Development Practices & Protocols: CI/CD, SDLC, OOPS, REST, RPC, GraphQL, Agile, Distributed Systems, Software Design Patterns, Microservices Architecture, Code Reviews.

Certifications: AWS Certified Solutions Architect Associate. | <u>Validate</u>

Professional Experience

Software Development Engineer

August 2022 – July 2023 Chennai, Tamil Nadu, India

Nokia Networks and Solutions

- Developed a RESTful API using Spring Boot to audit configuration consistency between Access Controller and Access Virtualizer, integrating the solution into Jenkins pipelines to enable automated deployment and validation.
- Developed an interactive network topology graph using D3.js, integrating with a RESTful backend API to dynamically retrieve
 and visualize ONTs, OLTs and device attributes for efficient PON network monitoring.
- Led the investigation and resolution of **100+ high-priority and critical bugs**, reducing system downtime by 50% and improving application performance by 30%.
- Developed and **automated test cases** using **Robot Framework** to validate the creation, deletion, and modification of intent stacks, ensuring proper propagation of changes across dependent intents and enhancing test efficiency by 40%.
- Optimized CI/CD workflows by monitoring multiple pipelines, performing root cause analysis, resolving automation test failures, and collaborating with cross-functional teams, reducing build failures by 30%.

Software Development Engineer, Intern

August 2021 - July 2022

Nokia Networks and Solutions

Chennai, Tamil Nadu, India

- Designed and implemented a **lightweight test execution framework** using **JUnit**, **Maven**, and **Spring Boot**, enabling developers to run selective automation tests locally, **reducing resource utilization** by 40% and **accelerating feedback loops** by 50%.
- Developed a Python script to streamline Access Controller setup by provisioning kubernetes pods and preparing the environment, reducing setup time by 70% and minimizing configuration errors for enhanced efficiency and reliability.
- Engineered a **backward compatibility validation framework** for configuration files, integrating it into CI/CD pipelines to enhance code quality and reduce manual validation time by 70%.

Projects

Data Engineering & Analytics

(Apache Spark, SparkSQL, GraphQL, Scala, GeoSpark, Neo4j)

- Designed and implemented a highly scalable and available data processing pipeline using Kubernetes, Kafka, and Neo4j, integrating document stream ingestion, real-time processing, and analytics, improving data processing efficiency.
- Developed scalable database solutions for large datasets, optimizing data loading of Reddit data with pg_bulkload, implementing spatial queries for a peer-to-peer taxi service using Apache SparkSQL, and utilizing PostgreSQL partitioning and query optimization techniques to enhance data retrieval efficiency and support advanced analytics.

Rich Text Doc (PDF) RAG for Arxiv Papers

(Apache Kafka, RocksDB, Faiss,S3,Lambda, OpenAi)

- Engineered a Retrieval-Augmented Generation (RAG) pipeline to query multimodal academic papers from arXiv, utilizing AWS S3, Lambda, RocksDB, FAISS, and Kafka to process, store, and retrieve embeddings for enhanced reasoning with OpenAI's LLMs.

Multi-Tier Elastic Web Application

(AWS, EC2, S3, SQS, RDS, ELB, CloudWatch, AWS Lambda)

- Developed a scalable multi-tier web application for face recognition using **Spring Boot** to build **RESTful APIs** and integrate AWS services like **EC2**, **S3**, and **RDS via Spring Cloud AWS**, ensuring high availability and efficient data processing for large datasets.
- Designed a dynamic load balancing and auto-scaling solution leveraging Spring Cloud to manage distributed systems, Spring Cloud
 AWS Messaging for SQS queue integration, and AWS CloudWatch metrics for automated traffic and resource scaling,
 achieving 99.9% uptime.
- Implemented a serverless architecture with Spring Cloud Function for event-driven workflows, enabling seamless deployment on AWS Lambda. Integrated with S3 and API Gateway to automate video processing tasks, achieving zero downtime and robust performance.

Secure User Document Approval System

(c#, ASP.net, windows forms, ADO.net, PostgreSQL)

Designed and developed a native file management application for windows desktop leveraging C# and the .NET ecosystem, including Windows Forms and ASP.NET, with ADO.NET for seamless PostgreSQL database integration.