CHANDRA KISHORE REDDY GURRAM

Education

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

Professional Experience

Software Development Engineer

August 2022 - July 2023

Nokia Networks and Solutions

- Chennai, Tamil Nadu, India - Designed a **RESTful API** using **Spring Boot** to cache NETCONF responses in **MongoDB**, reducing southbound traffic by 80% and
- enabling millisecond-latency config access. 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%. Designed and implemented REST APIs for scalable topology graph visualization with rule-based custom icon support and graph traversal logic to identify impacted nodes, enhancing personalization and fault analysis.
- Optimized topology graph visualization with lazy loading, reducing payload size by 80% and improving load times from 30s to less than 1s, eliminating timeouts and improving user experience.
- Developed and automated 10+ 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.
- Optimized CI/CD workflows by monitoring multiple pipelines, performing root cause analysis, resolving automation test failures, and collaborating with cross-functional teams, reducing recurring pipeline failures by 100%.

Associate Software Engineer

Nokia Networks and Solutions

August 2021 - July 2022

Chennai, Tamil Nadu, India

- Designed and implemented a lightweight test execution framework, enabling developers to run selective automation tests locally, reducing resource utilization and accelerating feedback loops by 50%.
- Automated artifact validation and download workflow using Python by parsing customer release notes to identify and flag broken links, reducing manual errors and improving release reliability.
- 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.

Projects

Data Engineering & Analytics

(Apache Spark, SparkSQL, 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.

Exploratory Data Analysis

(D3.js, React.js, Javascript, node.js)

- Built a full-stack interactive city analytics dashboard for the VAST Challenge 2022 using D3.js, with a database layer and REST APIs that powered real-time visualizations through dynamic SQL-driven queries

Generative AI: ASU's Text -To- Video Model

- Developed ASU's text-to-video data pipeline by curating large-scale datasets (Panda70M, OpenVid, VidGen) for advanced video captioning.
- Evaluated top models (LLaVA, QWEN, ORYX) using EMSCORE, SPICE, and BLEU, optimized prompt engineering, and synthesized a refined dataset to enhance text-to-video generation systems.

Multi-Tier Elastic Web Application

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

- Built a scalable multi-tier face recognition web app using Spring Boot and Spring Cloud AWS, integrating EC2, S3, RDS, and SQS for distributed processing and high availability.
- Designed a custom SQS-driven auto-scaling solution with CloudWatch and Spring Cloud, and implemented serverless workflows using Spring Cloud Function and AWS Lambda for event-driven video processing with zero downtime.

Technical Skills

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

Frameworks: Spring Boot, Spring Cloud, Maven, Hibernate, 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, Netconf, Agile, Distributed Systems, Software Design Patterns, Microservices Architecture, Code Reviews.

Certifications: AWS Certified Solutions Architect Associate. | Validate