

# CHANDRA KISHORE REDDY GURRAM

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## 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)

## 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](#)

## 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%.
- Led the investigation and resolution of **100+ high-priority and critical bugs**, reducing system downtime by 50% and improving application performance.
- 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%**.

### Software Development Engineer, Intern

**August 2021 – July 2022**

*Nokia Networks and Solutions*

*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.

### 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 using **AWS SQS** for messaging and **AWS CloudWatch metrics** for automated 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.

### 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**.