

KRISHNA MARRIPATI

kmarrrip@ncsu.edu | (919) 672-1934 | [linkedin.com/in/kmarrrip](https://www.linkedin.com/in/kmarrrip) | github.com/kmarrrip

EDUCATION

NC State University, Raleigh, NC

May 2025

Master of Computer Science

GPA:3.88/4.0

Coursework: Design & Analysis of Algorithms, Software Engineering, Computer Networks, Computer Network Security.

Osmania University, Hyderabad, India

May 2020

Bachelor of Engineering in Computer Engineering

GPA: 8.7/10

Coursework: Operating Systems, Computer Networks, Computer Organization & Architecture, Cryptography.

SKILLS

Programming: Java, SpringBoot, Go, Python, Flask, Django, C/C++, Nodejs, Typescript, React.js, Express.js, HTML, CSS.

Data: SQL, MySQL, MongoDB, PostgreSQL, Redis, NoSQL, AWS DynamoDB, CosmosDB, Databricks, Apache Spark, Apache Airflow, Amazon Redshift, AWS S3, Elastic Search, Apache Kafka, Apache Hadoop, Grafana, Prometheus, Firebase.

Software Development: Software Development, Testing, Git, Agile, Scrum, REST API, Microservices, Data Structures, Docker

Tools/Frameworks: Git, OpenAPI, Postman, Windows & Linux, Cloud platforms (AWS, Azure and GCP)

WORK EXPERIENCE

Research Analyst, NC State University, Raleigh, NC

May 2024 - Present

Data/Software Engineer

- Designed and implemented a scalable **ETL** pipeline using **Python** and **Apache Airflow** to extract and process 1.6 million tweets from Brandwatch, leveraging Apache **Kafka** for real-time data streaming and storing the processed data in AWS **Redshift**.
- Leveraged **PySpark** and **Pandas** to transform datasets and implemented sentiment analysis of tweets using an open-source **RoBERTa** model, resulting in a cost savings of approximately **\$5,000** in OpenAI credits and a **50%** improvement in project turnaround time.
- Optimized data storage by leveraging AWS **S3** and utilized AWS **Athena** to run on-demand SQL queries, while developing dynamic dashboards in **AWS QuickSight** to effectively visualize data sorted by users and regions.

Software Engineer 2, FactSet, Hyderabad, India

July 2022 - July 2023

Full stack Developer

- Led the development and implementation of an internal Service Catalog project, streamlining the deployment of custom-built Amazon Machine Images (AMI) through a mono repo architecture, and automating code deployment using **Terraform** modules.
- Enhanced the interactive full stack application using **vue.js**, **vuetify**, **Java Spring Boot** and **Postgres** to visualize data and improve decision-making and supported the team in reducing the issue tickets by **65%**, dockerized and deployed the application using AWS ECR
- Migrated **DNS** records for the full-stack application to **Cloudflare**, boosting security against **DDoS** attacks and utilizing its **CDN** for optimized delivery of static assets, this migration led to a 70% reduction in onsite incidents and brought down content delivery to **100ms**.
- Implemented **OAuth2** support using AWS **Cognito user pools**, enabling user authentication via JWT at AWS **API Gateway**.
- Developed a Python cron job running on **AWS Lambda** to collect Trusted Advisor logs across multiple micro accounts. Created and managed dashboards in Amazon **QuickSight**, utilizing **SPICE** data for faster query responses and enhanced data visualization.
- Oversaw data pipeline maintenance, ensuring seamless ingestion from various sources into **SPICE** dataset for enhanced stakeholder access to critical insights.

Software Engineer, Accellor, Hyderabad, India

Aug 2020 - Jun 2022

Backend Developer

- Designed and deployed a full-stack application using **Java Spring Boot** on AWS Elastic Container Service (ECS), managed APIs through OpenAPI/Swagger and AWS **API Gateway**, utilized AWS Aurora **RDS** for scalable data storage, and implemented an automated **CI/CD** pipeline with GitHub Actions to streamline development, testing, and automate deployment processes.
- Optimized database performance by integrating **RDS Proxy** to manage connections, achieving a **12%** reduction in memory utilization on RDS instances, enhanced query performance by **30%** by implementing global and local secondary indexes in the **Aurora** database.
- Developed a notification system using **OneSignal** and **Firebase Cloud Messaging** (FCM) to deliver push notifications to mobile apps.
- Integrated **Square** for payment processing, supporting POS terminals, card payments, Google Pay, and Apple Pay. Implemented card-on-file functionality and developed cron jobs for automated customer billing, while contributing to achieving **PCI DSS** compliance.
- Developed an in-memory data structure to fetch resource availability from AWS **RDS** within a time range of under **200ms** for mobile users, enhancing real-time performance and responsiveness, tracked user activity with **Pendo**, capturing clicks, browser events, time spent on pages, and other KPIs. Developed dashboards to present these insights to stakeholders for informed decision-making.
- Retroactively archived AWS S3 objects to **S3 Glacier**, reducing storage costs by **20%** and optimizing long-term data management.

Analyst Deloitte

Jan 2020 - June 2020

Intern analyst

- Developed a python script (**Selenium** and **Chromium**) for monitoring systems to assess network and server health for internal systems, cutting testing time by **8 hours**. Integrated **Grafana** and **Prometheus** for real-time tracking and visualization of server data.