Sathvikreddy Dudipala

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Education

Georgia State University

August 2023 - May 2025

Masters in Computer Science(Data Science and Analytics), CGPA: 3.9/4.0

Atlanta, GA

Indian Institute of Technology(IIT) Indore

August 2018 - May 2022

Bachelors in Technology, CGPA: 3.8/4.0

Indore, India

Work Experience

Full Stack Engineer | Graduate Research Assistant

August 2023 - May 2025

Georgia State University | Health Informatics Research Group

Atlanta, GA

- Orchestrated the integration of the Exact Sciences client portal with the **Epic** user web system, reducing data entry time for physicians and leading to a 30% reduction in data entry errors.
- Designed and developed **REST APIs** with **Node.js**, facilitating efficient data operations like updates, inserts, and creations, while utilizing **PostgreSQL** for database management.
- Enhanced user experience by creating **Angular** web pages for various lab tests, resulting in a 15% increase in user engagement and a 25% reduction in user errors when ordering tests.

Software Development Engineer

June 2022 - July 2023

Jio Platforms Limited

Hyderabad, India

- Developed and implemented the full-stack for **Automator.AI**, a No-Code NLP Automation Tool, using **React**, **Node.js**, and **Express.js**, enabling scalable and efficient test execution for UI and API testing.
- Built a scalable **Java** core engine for executing free-flowing statements on browsers and mobile devices, and a WebSocket-based solution for real-time updates, reducing server load by 30% through fewer polling requests.
- Designed and integrated parallel execution pipelines leveraging Kafka and Node.js worker threads, reducing API and UI test execution time by 60% through concurrent test runs.
- Implemented a standalone inbound Email/SMS server using **Haraka SMTP**, reducing external dependencies by 90%, streamlining communication processes and improving reliability by managing all email and SMS interactions.
- Built an advanced test reporting dashboard using **Grafana**, and **D3.js**, integrating test logs, execution metadata, and real-time performance data to generate detailed execution logs, DOM snapshots, network traces, and error heatmaps, accelerating defect triage by 35%.

Software Development Engineer Intern

January 2022 - May 2022

 ${\it Jio~Platforms~Limited}$

Hyderabad, India

- Developed a customized coupon generation system from scratch using **Spring Boot**, with a responsive **React** UI, capable of generating up to 10M coupons per request.
- Spearheaded optimization of storage and retrieval for 50M+ coupon records in **MongoDB** by implementing compound indexing strategies, boosting query performance by 50% and reducing latency under heavy data loads.
- Deployed coupon generation backend as **Dockerized** microservices on **AWS Fargate**, enabling scalable processing of 1M+ coupon records regularly with 99.9% uptime and efficient load handling.

Projects

CollabX | MongoDB, Node.js, Express, Socket.io, WebRTC

Github

- Built CollabX, a video conferencing platform with a responsive dashboard created with **HTML** and **CSS**. Implemented RESTful APIs to manage user profiles, meeting history, and scheduled meetings.
- Built real-time features such as **WebSocket**-based chat and a collaborative HTML5 Canvas whiteboard with **WebRTC**, secured user data with **JWT** and leveraged Google Analytics to enhance user engagement.

Technical Skills

Programming Languages: Java, JavaScript, TypeScript, Python, C++, Shell, SQL

Web Technologies: HTML, CSS, NodeJS, ReactJS, Angular, Spring Boot

Developer Tools: Git/GitHub, Jira, Docker, Redis, Kafka, Terraform, Grafana, Kubernetes, Swagger, Postman, Confluent, Bitbucket, JUnit, Mockito

Databases & IDE: PostgreSQL, MongoDB, SQL Server, Document DB, Visual Studio Code, Eclipse, IntelliJ Cloud Services: AWS EC2, S3, AWS Lambda, AWS RDS, DynamoDB, AKS, AWS Fargate