

# SAI KIRAN REDDY KOTHA

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## EDUCATION

### Master of Science, Information Technology

University of Cincinnati, Cincinnati, Ohio

January 2024- Graduation Date-April 2025

CGPA: 4.0/4.00

**Relevant Coursework:** Advanced Algorithms, Database Management Systems, Web Technologies, Cloud Computing, Software Engineering, Big Data Analytics, Microsoft Azure, Computer Networks, Cybersecurity.

### B Tech, Electronics and Computer Engineering

Sreenidhi Institute of Science and Technology ,Hyderabad, India

August 2019 – June 2023

CGPA: 3.63/4.00

## TECHNICAL SKILLS

**Programming Languages** Java, JavaScript, Python, SQL, C, C++

**Libraries & Frameworks** Spring Boot, Spring MVC, React.js, Node.js, Spring Data JPA, Hibernate, REST Api, GraphQL, JUnit, Jenkins, Docker, TensorFlow, OpenCV, Pandas, Scikit-learn, Matplotlib

**Databases** MySQL, MySQL Server, PostgreSQL

**Cloud Services** AWS, Microsoft Azure

**OS** Windows, MacOS, Linux, iOS, Android

**Tools** VS Code, IntelliJ, Jupyter Notebook, PyCharm, Git, GitHub

**Other Skills** Data Structures and Algorithms, Competitive Programming, MS Office (Word, Excel, PowerPoint), Web Application Security, Network Protocols, ETL processes, Data Transformation

## PROFESSIONAL EXPERIENCE

### Software Engineer, Broadridge, India

February 2023 – September 2023

- Built a transaction tracking dashboard using React.js and Redux, boosting UI performance by 30% and reducing bugs by 20%.
- Developed RESTful APIs in Spring Boot for seamless transaction management between front-end and back-end.
- Improved the efficiency of database queries for transaction history retrieval by 40% using multithreading and Hibernate ORM, resulting in quicker user access.
- Implemented secure user authentication and authorization with JWT tokens and OAuth, reducing unauthorized access attempts by 70% and increasing user trust in the platform.
- Automated testing and deployment using Jenkins-based CI/CD pipelines, reducing manual errors by 60% and cutting deployment time by 40%.
- Managed Git repositories and used JIRA for issue tracking, improving project delivery timelines by 20% through active participation in Agile methodologies.

### AWS Cloud Virtual Internship, EduSkills Foundation, India

March 2022 –May 2022

- Gained hands-on experience with key AWS services, including EC2, S3, DynamoDB, RDS, Lambda, and VPC, by completing practical labs.
- Explored cloud infrastructure concepts, enhancing knowledge in scalable computing, storage solutions, and network management using AWS technologies.
- Implemented AWS best practices in security, data management, and deployment, improving overall cloud proficiency.

### Machine Learning Intern, IStop.ai, India

September 2021 –November 2021

- Developed an email classifier using Naive Bayes and Bag-of-Words, achieving 97% accuracy in distinguishing spam emails.
- Conducted data preprocessing and feature extraction to optimize the performance of the classifier.
- Collaborated with a team to test and validate the model, ensuring reliable email filtering in real-world scenarios.

## PROJECTS

### TODO Management Web Application (Java | Spring Boot | React | MySQL)

- Developed a scalable multi-user TODO management app with React.js, Spring Boot, and MySQL, enhancing user authentication with JWT and role-based access control (RBAC) for 100% secure sessions.
- Reduced API response time by 40% through optimized database schemas and SQL queries, improving system performance.
- Deployed the app on AWS with Docker containers, reducing deployment time by 30% and automating deployment using Jenkins CI/CD pipelines.

### REST API for Social Media Application (Java | Spring Boot | React | MySQL)

- Built RESTful APIs for user and post management with Spring Boot and MySQL, optimizing data for high-traffic environments.
- Enhanced API throughput by reducing latency by 30%, ensuring seamless performance under load.
- Streamlined development workflows with Jenkins-driven CI/CD, cutting deployment time by 50%.

### Pothole Detection Using CNN (Python | OpenCV | CNN | NumPy | TensorFlow)

- Created a CNN-based machine learning model for pothole detection, reducing false positives by 30%.
- Processed over 1K records to construct a robust training and testing pipeline, improving model accuracy and reliability.
- Improved object detection on roads by integrating location tracking via IP addresses, minimizing error rates during deployment.