# Sai Sharan Karam

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### **Professional Summary**

• Software Engineer with 4+ years in backend and frontend development. Skilled in Core Java, Spring Boot, and optimizing data pipelines, as well as ReactJs and NextJs. Proven track record in enhancing system performance, developing RESTful APIs, and reducing costs. Created a portfolio app using NextJs. Published researcher pursuing a Master's in Computer Science, focusing on Network and Information Security. Proficient in Java, Python, SQL, and cloud platforms, with strong problem-solving and mentoring skills.

#### Technical Skills

Languages: Java, Python, SQL, JavaScript, C++, C#

Frameworks/Technologies: Spring Boot, ReactJs, NextJs, Angular, Hibernate, REST APIs, Microservices,

RabbitMQ, Linux Server, AJAX, Docker, Kubernetes, Kafka, Grafana, Prometheus

Databases: Databases: MySQL, Oracle, Elasticsearch

Cloud Platforms: AWS (EC2, S3, SQS, RDS), Google Cloud Platform, Microsoft Azure(Service Bus)

Development Tools: Git, GitHub, Jenkins, Docker

Other Skills: Backend Development, Data Ingestion, Data Storage, Data Retrieval, Database Modeling, Performance Tuning, Query Optimization, Scalability Enhancements, SDLC, Agile, TDD, Continuous Delivery, System Design,

Functional Programming, Maintain Documentation, Networking Fundamentals, CI/CD, ChatGPT

Soft Skills: Effective Communication, Problem Solving, Team Collaboration, Critical Thinking, Attention to Detail, Troubleshooting, Learning Quickly, Self-management, Independence, Service Oriented

#### Experience

#### Infor Pvt Ltd, India - Software Engineer

July 2019 - Aug 2022

- Developed and maintained scalable microservices using Core Java and Spring Boot, enhancing performance and reliability of Infor ION, improving system uptime by 15% and reducing response times by 20%.
- Designed and implemented RESTful APIs to enable seamless data integration and interaction across multiple systems, improving data exchange efficiency by 30%.
- Managed solutions for billions of records and created purge mechanisms that reduced AWS S3 storage costs for customers by 28%.
- Optimized database performance and ensured data consistency by designing efficient SQL schemas and implementing complex queries in MySQL and Oracle databases, resulting in a 25% reduction in query execution times.
- Optimized queue fetching with efficient polling mechanisms and batch processing, implemented robust dead-letter queue handling, and led migration to cloud-based solutions (AWS SQS, Azure Service Bus) & on-premise AMQP, resulting in a 40% increase in throughput and enhanced system reliability.
- Implemented CI/CD automation in build & deployment processes, testing, and data pipelines using Jenkins, reducing deployment time by 30%.
- Created and optimized NoSQL queries on billions of data points in Elasticsearch, enhancing data retrieval speed, accuracy, and efficiency.
- Worked with front-end developers using Angular to fix UI issues and enhance user experience, reducing bugs by 40%.
- Mentored junior team members, fostering a collaborative and learning-oriented team environment, contributing to their professional growth and development.

#### Defence Research & Development Organisation, India - Intern | Internship

May 2017 – Feb 2018

- Developed a Java-based data transmission application for secure military communications, focusing on networking and data stream optimization. Contributed to enhancing the security and efficiency of data transmission within a critical national defense infrastructure.
- Maintained high efficiency in listing down thousands of devices in an IP network and created an XML to store them, providing a CSV format output for comprehensive network device monitoring.

## Publication

• Data Transfer Methods and Strategies: Unified Replication Model Using Tree Designed a novel unified replication model using trees to address the challenges of data consistency and fault tolerance in distributed database systems. published in Proceedings of the Second International Conference on Advances in Computing Research (ACR'24)

## **Projects**

- Personal portifolio: Created and deployed personal portifolio page using NextJs and Vercel deployment stored in personal repo on Github. It was my first project in my learning curve of ReactJs.
- Celeb Like Me Deep Neural Network for Image Classification: Developed a CNN and Neural Network-based application that matches users' faces with Hollywood celebrities, showcasing the practical application of deep learning techniques in image recognition with 93.8% accuracy. The dataset was used from kaggle and it was formulated in such way that it recognised only white, brown and black people
- Change Impact Analysis Using Python for Java Applications: Created a Python application created to automatically examine and forecast the consequences of modifications made to a Java codebase. This tool assists developers in comprehending the probable alterations before they are actually implemented.

#### Education

Troy University, Troy, AL

Aug 2022 - May 2024

Master of Computer Science -Network and Information Security

GPA: 3.5

Advanced DBMS, Artificial Intelligence, Network and Information security, Advanced Algorithms, OS

Vasavi College of Engineering (Osmania University), Hyderabad, India

Aug 2015 - May 2019

Bachelor of Engineering in Computer Science

GPA: 7.5/10

AI, Image Processing, Data Structures, Cloud Computing, Distributed Systems, OOPS, DBMS