

Tushar Singh

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<https://linkedin.com/in/tushar-singh-sde> | https://leetcode.com/u/elite__coder/ | <https://github.com/tushar-fs>

Education

San Jose State University

San Jose, CA

- Master of Science, Computer Software Engineering, GPA: 3.7/4.0 January 2025 - December 2026
- Coursework: Enterprise Distributed Systems, Software Systems Engineering, Enterprise Software Application

National Institute of Technology

Meghalaya, India

- Bachelors, Computer Science & Engineering, GPA: 3.5/4.0 August 2018 - June 2022
- Coursework: Data Structures & Algorithms, Object Oriented Programming, Database Management Systems, Computer Networks, Operating Systems, Agile Methodologies

Experience

Tekion Corp

Bengaluru, India

Software Engineer

July 2022 - December 2024

- Built and optimized real-time transaction status from **short-polling to Server-Sent Events**, reducing latency from over 3s to less than 500ms and increasing Tekion pay adoption by 45%.
- Scaled a **microfrontend architecture** by integrating **Module Federation**, cutting initial bundle sizes by 33% and facilitating secure, dynamic code deployments.
- Optimized web performance by implementing **Next.js hybrid rendering model** (Static Site Generation + Client Side Rendering) for a vehicle comparison page, resulting in a **60% Largest Contentful Paint(LCP) reduction** and a transition from 'Poor' to 'Good' Google Lighthouse score.

Software Engineer Intern

January 2022 - June 2022

- Implemented a **JSON-driven forms engine** to automatically generate custom forms based on dealer-specific business logic, cutting new dealer setup and configuration time by 55%.
- Authored comprehensive unit tests using **Jest and React Testing Library (RTL)** to verify code correctness and achieve over 85% code coverage on the Account Receivables module.

Technical Skills

- **Programming Languages:** JavaScript(ES6+), TypeScript, Java, C++, Python, SQL
- **Frontend:** Next.js, React.js, TanStack Query, Material UI, Jest, React Testing Library(RTL)
- **Backend:** Spring Boot, FastAPI, Microservices, Spring Data JPA, JDBC, REST APIs, JUnit
- **Databases & Message Queues:** MySQL, NoSQL, Redis, RabbitMQ, Kafka, MQTT
- **AI/ML:** LLM Integration, LangChain, RAG, Vector Databases, Gemini API
- **DevOps/Cloud:** Git, Docker, Kubernetes, CI/CD(Jenkins), AWS (EC2, S3, Lambda)

Academic Projects

Customer Support Analyzer | [<https://github.com/tushar-fs/customer-support-analyzer>]

- Architected an AI-first, full-stack semantic search engine using a **Retrieval-Augmented Generation (RAG) pipeline** to query a customer support knowledge base, achieving 80% accuracy in responses.
- Combined Google's **gemini-1.5-flash-latest** LLM with a ChromaDB vector database and sentence transformers to deliver context-aware resolution from a knowledge base.
- **Technologies:** Python, FastAPI, Google GenAI SDK, ChromaDB, React, Next.js

BookTable | [<https://github.com/gopinathsjsu/team-project-20201-synergy>]

- Established the Restaurant Booking application project, dockerized frontend, built core user interfaces and created dynamic restaurant search and discovery by integrating **Google Maps API**.
- Developed 5 robust backend REST APIs in Spring Boot to handle user registration, booking management, and restaurant search functions; leveraged Spring JPA and JDBC for CRUD operations against a MySQL database to ensure data persistence.
- **Technologies:** Java, Spring boot, JDBC, MySQL, Gradle, Docker, Next.js, React, HTML, CSS