

# Dishank Oza

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## EDUCATION

### Santa Clara University

Santa Clara, USA

#### Master of Science in Computer Science and Engineering

Sept 2024 - June 2026 (Expected)

- Relevant coursework: Object Oriented Analysis, Design and Programming, Database Systems.

### University of Mumbai

Mumbai, India

#### Bachelor of Engineering in Computer Engineering

Aug 2017 - June 2021

- Relevant coursework: Data Structures, Advanced Algorithms, Distributed Computing, Machine Learning.

## EXPERIENCE

### Research Assistant

Oct 2024 - Present

#### Frugal Innovation Hub Lab @ SCU

Santa Clara, USA

- Implemented a document upload and retrieval system with **MongoDB GridFS** and **Next.js** APIs for the university project management dashboard reducing load times by **18%** through revised data handling and efficient file streaming.

### Senior Software Engineer

May 2023 - July 2024

#### Freespace

Mumbai, India

- Directed a team of 4 in agile development, overseeing architecture, development, and release of product features; recognized as **Freespace Captain** for exemplary leadership and problem-solving.
- Conceptualized and developed a bot to streamline amenity booking using **AWS DMS CDC**, **Kinesis**, and **EventBridge**, achieving a **3000%** increase in event distribution efficiency and resource utilization.
- Revamped API transaction handling by replacing serialized locks with **Redis distributed locks** in a **Spring Boot** application, reducing database load and improving concurrency, resulting in a **57%** performance boost during peak times.
- Migrated amenity booking APIs to an **event-driven architecture** with **AWS SQS FIFO** and **Lambdas**, converting synchronous bookings to asynchronous processing, cutting down deadlocks and server costs by **25%**.

### Software Engineer

May 2023 - July 2024

#### Freespace

Mumbai, India

- Maintained and enhanced a custom frontend component library created with **React**, **TypeScript**, and **Storybook**, delivering tailored branding styles for clients and boasting UI consistency and development efficiency.
- Led migration to SPA with **React routing**, route-based and custom **Webpack code splitting**, **HOCs**, doubling first-load speed and improving repeat visits by **400%**.
- Built a **serverless** notification system leveraging **AWS Lambda**, **SQS**, **SNS**, and **SES** for scalability, with multi-channel support (email, push, SMS) and a **CloudFormation stack** for automated infrastructure provisioning.
- Developed and maintained RESTful APIs using **Spring Boot** and **GraphQL** for an enterprise application serving **100,000+** users across **30+** global clients, managing up to **5,000** concurrent requests per minute.

## PROGRAMMING SKILLS

- **Certifications:** [AWS Developer Associate](#), Scrum Alliance-Scrum Foundations, Discovering Backend Bottlenecks
- **Full-Stack:** HTML/CSS, Tailwind, Nextjs, Spring Boot, GraphQL, React, NodeJS
- **Database and Cloud:** MySQL, PostgreSQL, MongoDB, Neo4j, Redis, AWS(CloudFormation, IAM, S3, AWS serverless stack)
- **Programming Languages and Tools:** Java, JavaScript, TypeScript, Python, SQL, Docker, Kubernetes/EKS, Jenkins, Git, Linux

## PROJECTS

- **Hand Tracking & Gesture Recognition:** Built hand gesture-based input modes, using MediaPipe framework, allow for distance interaction with programs, offering accessibility benefits by translating sign language into captions and enhancing communication.[\[Springer Publication link\]](#)
- **Medicine Reminder Application:** Developed a medication management app facilitating storing, scheduling pill information and generating alarms and personalized call-based reminders.

## ACHIEVEMENTS, AWARDS, AND LEADERSHIP

- **Awarded Freespace Captain** for successfully leading the team, utilizing exceptional problem-solving skills, and ensuring timely delivery of project deliverables
- **2nd in Asia** in international SAE Aero Design East Competition (U.S.A) 2020
- **3rd in Smart India Hackathon** qualifier 2020 for license plate recognition and automated parking system using Raspberry Pi.
- **1st in Technical Paper Presentation**, Crescendo 2021 held in Fr. Conceicao Rodrigues College of Engineering.