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)

o 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

Frugal Innovation Hub @ SCU

Santa Clara, USA

Software Engineer

Oct 2024 - Present

Developed a document upload and retrieval system with **MongoDB GridFS and Next.js** APIs for the university project management dashboard, reducing load times by **30%** through optimized data handling and efficient file streaming.

Freespace Mumbai, India

Senior Software Engineer

May 2023 - July 2024

- Led a team of 4 in agile development, owning the end-to-end architecture, development, and release of product features;
 awarded Freespace Captain for exceptional leadership, problem-solving, and timely delivery.
- Developed a bot that optimized amenity booking event processing using **AWS DMS CDC** for continuous data replication, along with **Kinesis and EventBridge**, achieving a **3000%** increase in event distribution efficiency and better resource utilization.
- Optimized API transaction handling by replacing serialized locks with **Redis distributed locks** in a **Spring Boo**t 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, reducing deadlocks and server costs by 25%.

Freespace Mumbai, India

Software Engineer

June 2021 - May 2023

- Contributed to and maintained a custom frontend component library using **React, TypeScript, and Storybook**, implementing tailored branding styles for clients and enhancing 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 using 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, Lambda, S3, API Gateway, Route 53, IAM)

Programming Languages and Tools: Java, JavaScript, TypeScript, Python, SQL, Docker, Kubernetes/EKS, Jenkins, Git, Linux

PROJECTS

- Hand Tracking & Gesture Recognition: Developed 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
- o **2nd in Asia** in international SAE Aero Design East Competition (U.S.A) 2020
- o **3rd** in **Smart India Hackathon** qualifier 2020 for license plate recognition and automated parking system using Raspberry Pi.
- o **1st in Technical Paper Presentation**, Crescendo 2021 held in Fr. Conceicao Rodrigues College of Engineering.