

Manas Sharma

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EDUCATION

University of California San Diego

M.S. Computer Science GPA: 4.0/4

La Jolla, CA

Expected Dec 2023

The National Institute of Engineering

B.E. Computer Science GPA: 9.37/10

Mysore, India

2017-2021

TECHNICAL SKILLS AND RELEVANT COURSES

Languages	Java, Python, SQL, GoLang, NodeJS, TypeScript
Tools & Framework	Git, React, Cloud (AWS), REST, GraphQL, Docker, Spark
Teaching Assistant	Probability and Statistics for Computer Science
Courses	Data Structure and Algorithms, Software Engineering, Big Data Analysis

WORK EXPERIENCE

Graduate Student Researcher

[UC San Diego](#)

Jul 2023 - Present

La Jolla, CA

- Working in the lab of Prof. Yoav Freund on active learning using region based sampling.

Software Engineer

[UC San Diego](#)

Feb 2023 - Jun 2023

La Jolla, CA

- Developed the payment service for [ITA](#), used Django and React and collected more than \$200,000.

- Integrated scheduling, profiling, and gallery features with REST APIs to enhance attendees experience.

Software Engineer

[JP Morgan Chase & Co.](#)

Feb 2021 - Sep 2022

Bangalore, India

- Ensured a highly scalable error correction system using Spring Boot that could ingest over 100 GB data daily.

- Provide real time overview in a customizable dashboard made using React.

- Achieved a 40% reduction in error-fixing time by developing an automated workflow service.

- Established an end-to-end CI/CD pipeline for our cloud-native microservices ecosystem, enabling agile development.

- Incorporated unit test cases using JUnit to ensure code quality and achieve a code coverage of over 90%.

- Implemented robust APIs to support efficient data retrieval and processing for land and load related applications.

- Represented the development team to provide monthly updates to the head of SRE for all the technical changes.

Software Engineering Intern

[JP Morgan Chase & Co.](#)

Jun 2020 - Jul 2020

Bangalore, India

- Developed a database schema for a scheduler application that streamlined scheduling and notifications management.

RELEVANT PROJECTS

CloudStore

Jan 2023 - Apr 2023

- Designed and implemented a network file storage with GoLang using gRPC, allowing files synchronization.

- Implemented a Consistent Hashing Ring to efficiently distribute and manage data blocks on the cloud.

- Implemented the RAFT protocol to achieve consistency and fault tolerance.

- Used SQLite3 to maintain metadata and allowed multiple users to service simultaneously without race condition.

Serverless Birds Audio Analyser

June 2023 - Present

- Analyze the bird species within the audio file using BirdNet in a serverless setup to reduce operational expenses.

- Created an EventBridge trigger to invoke a Lambda function when an audio file is uploaded to a S3 bucket.

- Provisioned a Docker container using Lambda function within AWS Fargate to process the audio file.

Two Phase NeRF

June 2023

- Achieved reduction in NeRF model's training time by 25% by applying ideas from transfer learning.

- Worked in a team of four and developed the solution in Pytorch.

- Developed a pipeline that creates 3D reconstruction of any object from the ShapeNet dataset.