

HARSH SHAH

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Skills

- C++ | JavaScript | Python | Go | TypeScript | NodeJs | Express | Angular | WeaviateDB | MongoDB | MySQL | Git | Pytorch | Flask | AWS
- Microservices | Distributed Systems | Backend | Machine Learning | English,Hindi,Gujarati- All professional proficiency or above

Experience

Application Dev Intern

[Morgan Stanley](#)

Mumbai, MA, India

05/2023 - 07/2023

- Designed and deployed a new **asynchronous** client pub-sub subscription service that reduces the overall API call overhead by **28%**.
- Integrated **4** visually appealing and **Interactive** Highcharts to show **real-time data** regarding transactions and agent exposure.
- Migrated the User-Interface (**2** complex screens) with upgraded angular to the company's monorepo with over **40** projects.
- Developed **angular tests** for all the components of 1st screen using Jasmine and made it to **QA** tests, reaching **test coverage** of **82%**.

DSA Instructor Intern

[USACO org\(CPI\)](#)

Remote

10/2022 - 12/2022

- Taught Data Structures and algorithms to **120+** students in daily lectures imparting knowledge in silver topics like Graphs , 2P , DSU.
- Delivered **5 high quality** articles for their regular as well as annual open contests conducted by CPI(Competitive programming Initiative).

Education

Bachelor of Engineering

[DJ Sanghvi college of engineering](#)

Mumbai, MA, India

2020 - 2024

- Majors in Computer Engineering | **CGPA : 9.33**

Projects

[IMGRESS](#)

React | NodeJs | TiDb | Weaviate | Pytorch | S3-Bucket | ECS

- One stop Destination to **create , orchestrate and manage** your personalized reverse image search engine instances within **1** minute.
- Designed to be **highly scalable** that comes with **3** serverless distributed microservices connected to high performance database.
- Powered by a **vector database** and pre-trained Img2-vec neural network for robust , accurate and quick Image similarity search with accuracy upto **92%**
- Supported by a trail of **audit logs** which enables the user to manage and track all up to **500** past actions for an engine instance efficiently.

[REMOTE CODE EXECUTION ENGINE \(RCE\)](#)

NodeJs | Docker | Shell

- A software used for remote **code isolation and execution** of C++ and python which can be deployed as an independent microservice
- Uses the **Server-Worker-Queue** microservices architecture
- Allows Parallel code execution of up to **5** submissions in multiple sibling docker containers
- Enabled with code **containerization** to prevent system failure by bombing and **malicious codes**.

[SOULSUPPORT.AI](#)

React | NodeJs | Azure | Python | Shell | LangChain | LLM

- AI based virtual behavioral companion to support a mentally stressed and disturbed individual with text and audio support **24/7**.
- Powered by a **Falcon-7B** fine-tuned using qLora and optimized to **4-bit quantization** acting as the brain ,enabled with chained responses
- Stacked with **6** exclusive features like **smart doctor search , user report generation**, diet plan recommendation , auto alerting system etc.
- Stress and Anxiety detection in real-time using **2** sentiment analytical models deployed independently via **audio and video**

Achievements

- **Winners** of **India's largest hackathon** ,UST D3CODE 2023 over **11500+** registrations
- All India Rank **57** in **ICPC** Kanpur- Mathura doublesite regionals 2022-2023
- All India Rank **61** in **ICPC** Amritapuri doublesite regionals 2021-2022
- **Winners** of Semicode coding challenge 2022 over 3 qualifier rounds
- All India Rank **1** in Ignite Programming challenge held over 2 qualifier rounds.
- Pan India **second runner ups** in Crackathon competition held over 3 qualifier rounds
- Global Rank **471** out of (**30000+**) participants in codeforces round 817.
- Global Rank **76** out of (**36000+**) participants in Newton's school monthly coding contest Coderush March'23

Others

- **Infosys Campus Ambassador** (2022 -2023) : Selected to through top ranking students from **HackWithInfy 2022**
- Machine Learning head at Synapse , the official AI/ML committee of the college