

Harsh Shah

Avid learner

Bachelor of Technology

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GitHub Profile

LinkedIn Profile

Portfolio

EDUCATION

•Bachelor of Technology in Computer Engineering

DJ Sanghvi College of Engineering , Mumbai

2020-24

CGPA: 9.21

EXPERIENCE

•Morgan Stanley

SWE Intern

May - July 2023

Mumbai , MA , India

- Upgraded an augmented asynchronous client API using in-memory cache reducing the API overhead by 22%
- Integrated 4 visually appealing and Interactive Highcharts that display real-time data of agent exposure.
- Migrated the User-Interface (2 complex screens) with upgraded angular to a mono-repo with over 40 projects.
- Developed unit angular tests for multiple components of 1st screen thereby extending the test coverage to 82%

PROJECTS

•Sunpy(Open Source)

The community-developed, free and open-source solar data analysis environment for Python.

- Refactored the sunpy attributes and the world coordinate system to updated version in PR-6732
- Overhauled the HTTP error handling in the scraper client along with re-query limiter and extending the pytest coverage to 72 % in PR-7541
- Technology Used: Python

•Encache(NPM Package - 600+ downloads)

A lightweight , Inmemory Async Caching Library for your Nodejs Server.

- Developed a GET method with 0.01 ms average latency, optimized for high-frequency requests.
- Integrated 6 eviction policies with seamless dynamic swapping, ensuring no data loss.
- Implemented LZ4 compression, reducing data chunk size by up to 50%.
- Technology Used: TypeScript, Javascript, NodeJS, Jest,

•SoulSupport.ai(Won UST D3code)

AI based virtual behavioral companion to support a mentally stressed and disturbed individual with text and audio support 24/7.

- Designed an AI bot utilizing a fine-tuned Falcon-7B model with QLora and 4-bit quantization, enabling chained conversational responses.
- Incorporated 6 unique features including smart doctor search, user report generation and personalized diet plan recommendations.
- Built real-time stress and anxiety detection using dual sentiment analysis models processing audio and video data.
- Technology Used: NodeJs, React, Falcon-7B, Flask, Python, MongoDb

•Imgress

A one stop destination to create and orchestrate your reverse image search engine containers.

- Streamlined a scalable system using 3 serverless, distributed services connected to a high-performance database
- Implemented a vector database and Img2-vec model for high-accuracy image similarity search (up to 82%)
- Integrated an audit log system allowing users to track up to 500 past actions.
- Technology Used: NodeJs, React, AWS, Weaviate, MySQL(TIDB).

ACHIEVEMENTS

•ICPC Asia West Regionals:

3x regional finalist with all India ranks **61, 57 and 84** from 2022 - 2024

•UST D3Code 2023:

Winners of India's largest hackathon, with over **12500+** participating teams

•TIAA , T3Hacks 2024 :

2nd Runner up after competing against **2200+** registered participants

•VOIS International Finalists:

India top **10** out of **5000+** competing teams

•Codeforces:

Expert, India top **95%** percentile

•Newton School:

Global rank **76** out of **12000+** participants in Coderush march 2023

•Pan India Coding challenges winner:

AIR-1 in semicode 2022, rank-1 in Ignite 2023, 3rd in Crackathon

TECHNICAL SKILLS

Languages: Proficient in C/C++, Python, Javascript, Typescript

Libraries and Frameworks : C++ STL, Angular, Django, NodeJs, Selenium, PrismaORM, Jest

Web Dev Tools: VScode, Git, Github

Cloud/Databases: MongoDB, MySQL, TiDb, Weaviate, Docker , PostgreSQL

Relevant Coursework: Data Structures & Algorithms, Operating Systems, OOPs, Database, Software Engineering.