# HARSH BHAGAT

Ahmedabad, Gujarat, 380007

## Education

# School of Engineering and Applied Sciences, Ahmedabad University

August 2021 - June 2025

Bachelors of Technology in Computer Science and Engineering- CGPA: 3.44

Ahmedabad, GJ

Experience

#### Biznovare Solutions Pvt. Ltd.

May 2024 - July 2024

Software Development Intern

OnSit

- Developed a stone listing website named Stone Stocks from scratch using Quarkus, VertX, HTMX, and PostgreSQL, focusing on reactive programming.
- Implemented REST APIs and integrated Keycloak for user authentication and authorization.
- Optimized the backend performance with asynchronous programming using Vertx.

## **Projects**

## OdinLabs | Typescript, MongoDB, ExpressJS, React, NodeJS

July 2024 - August 2024 (Team)

- Developed an in-house application using WebRTC for real-time monitoring of 200+ students during lab sessions and DSA contests.
- Implemented key features like local network restrictions, single-time sign-in, and full-screen mode to prevent cheating, reducing it by 95%.
- Enhanced classroom management and practice environment by creating a secure platform, resulting in 10k submissions and over 4 lakh database operations in 3 months.

# Balancing Unbalanced Edges on Signed Graphs | NetworkX, Gephi

June 2023 - present (Team)

- Collaborating on research under prof. Amit Nanavati, implementing and optimizing graph algorithms from his paper.
- Also created a benchmark dataset to test the efficiency of the algorithms
- Utilized NetworkX for algorithm development and Gephi for visualization.

## BroomstickGetaways | Site | ReactJs, ExpressJs, Stripe API, MongoDB

July 2023 - August 2023 (Team)

- Crafted a MERN Stack web app for WMC3.0 by the Programming Club.
- Implemented secure sessions and protected routes using ExpressJs and JWT.
- Recognized with the Best Backend award among 22 participating teams.

# $\textbf{\textit{Competitive Programming Discord bot} \mid \text{Discord API, Codeforces API, web scraping}$

June 2022 (Solo)

- Engineered a Discord bot that extracts coding challenges from Codeforces API.
- Incorporated a feature enabling users to specify problem difficulty preferences.
- Equipped users with direct links to access and solve questions on Codeforces.
- Offered an interactive tool for honing coding prowess in a playful manner.

## Extracurricular

## Head - Steptech, The Stepwell Radio

May 2023 - Present

- Leading the technical architecture management of the University Radio.
- The University Radio is designed to cater to all the 5000 students and around 200 faculties with engaging content of various fields.
- Collaborating with a team of 2 to enhance the website's frontend and backend.

#### Secretary - ACM Student Chapter

August 2022 - June 2023

- Brought in technical expertise and ability to network with potential collaborators.
- Organized and managed 3 major events, including a 10-day Winter School on Network Science with guest lectures from renowned professors.
- Led the Pair-a-thon coding competition and coordinated an AI introduction seminar featuring an expert from IBM.

## Google Cloud

December 2022 - January 2023

- Successfully completed the comprehensive Cloud Engineering Learning Path.
- Gained expertise in cloud architecture maintenance, automation, and scaling strategies.

### Volunteering at Prabhat Education Foundation

December 2021 - January 2022

- Provided direct assistance to children with intellectual disabilities, offering valuable support and care.
- Produced impactful visual content, including posters and videos, to raise awareness about mental health conditions.

## Technical Skills

Languages: Python, Java, Dart, C, C++, HTML/CSS, JavaScript

Developer Tools: VSCode, Android Studio, Xcode, NetBeans, AWS, GCloud, Gephi

Technologies/Frameworks: GitHub, Docusaurus, Flutter, ExpressJS, Pandas, Tkinter, p5.js, MongoDB, Linux, Quarkus, VertX