

RATNESH TARAKANT PASI

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EDUCATION

B.Tech. in Computer Science and Engineering

Indian Institute of Information Technology, Surat

Jul 2021 - Mar 2025

C.G.P.A. 7.5/10

H.S.C. Bifocal Computer Science

Acharya Ambalal V. Patel Jr. College

Jun 2019 - Mar 2021

Percentage: 89%

S.S.C. Maharashtra State Board

Greater Mumbai Education Society High School and Jr. College

Jun 2018 - Mar 2019

Percentage: 81.2%

SKILLS

Languages JavaScript, C, C++, Python, SQL

CS Concepts Data Structures, OOP, Operating Systems, DBMS

Front-end ReactJS, NextJS, React Native, Expo, Tailwind, GSAP, Redux, React Query

Back-end ExpressJS, Flask, Prisma, Mongoose, MySQL, MongoDB

Tools Prismic CMS, Git, GitHub, Hugging Face, Postman, Stripe, Clerk

EXPERIENCE

Research Intern

Supervisor: Prof. Nipun Batra

Jan 2025 – Jul 2025

IIT Gandhinagar, Sustainability Lab

- Contributed to VayuBuddy, a natural language QA system for Indian air quality data, by integrating structured datasets and enabling user-friendly data exploration.
- Assisted in building and evaluating AQBench, a benchmark for assessing LLMs on real-world air quality questions using code generation and execution metrics like *pass@k*, *Exec@1*.
- Fine-tuned LLMs (e.g., Qwen2.5-Coder-1.5B) on curated AQBench data and tabular datasets to improve code generation accuracy for environmental data analysis tasks.

PROJECTS

Pixel Plex - [repo](#) [Link](#) - [live](#) [Link](#)

Apr 2024

A Live streaming platform with user-friendly interface

NextJS, Shadcn, MySQL, Prisma

- Content creator or a passionate viewer, Pixel Plex provides an intuitive experience to enjoy live streams effortlessly, while providing full control over the stream such as stream thumbnail, description, live Status, live viewer, follow, block, enable/disable chat, chat delay, followers only chat for Authenticated and guest users.
- In this Authentication Provider Clerk is used for authentication purpose and for live streaming the LiveKit API is utilized.

Pixify - [repo](#) [Link](#) - [live](#) [Link](#)

Apr 2024

A AI SaaS Web App with Image Alteration features

NextJS, Shadcn, MongoDB, Mongoose

- This AI SaaS web App with Image alteration features with help of AI where user can remove object, remove background, recolor object, generative fill and restore quality of Images, Cloudinary AI API is used to develop.
- Stripe Payment Gateway is integrated with the web app based on credit system, credit deducted when image is uploaded. Stripe Web Hook is used to trigger a purchase event and update the user data in the app database.
- The users can share the final result with initial image among each other on the platform, and Clerk is used for auth.

News Prediction App - [repo](#) [Link](#)

Mar 2024

A Mobile App predicts whether the news is real or fake

Expo, Style Sheets, Flask, Scikit-learn

- This is a react native application build using Expo Framework. For predicting whether the news is real or fake.
- The back-end prediction model has been trained on a 7000+ news data set and deployed on a flask app.

LEADERSHIP

Robotics Club Of IIIT Surat

Oct 2023 - Aug 2024

IoT Lead

- Organized and conducted robotics and IoT workshops year-round, including 2 competitions and 2 workshops during the annual college fest Spring Fiesta, while mentoring junior students for inter- and intra-college robotics events.