

VATSAL BATERIWALA

+91 8401062005

u23ai030@coed.svnit.ac.in

LinkedIn

GitHub

LeetCode

Codeforces

Education

Sardar Vallabhbhai National Institute of Technology, Surat

Aug. 2023 – May 2027

Bachelor of Technology in Artificial Intelligence

CGPA : 9.38 (Till Sem 3)

Relevant Coursework:

- Introduction to Computer Science
- Linear Algebra and Statistics
- Database Management Systems
- Data Structures
- Discrete Mathematics
- Object Oriented Programming
- Web Programming and Python
- Calculus
- Design and Analysis of Algorithms

Projects

Financio - Finance with Financio | Website | GitHub

Aug. 2024

Technologies: Next.js 14, TypeScript, PostgreSQL, Hono API, ClerkAuth, Vercel

- Collaboratively developed **Financio**, a Finance SaaS platform with **10+ features** for personal and business financial management.
- Built using **Next.js 14**, **TypeScript**, **PostgreSQL**, and **Hono API**, resulting in **30% faster load times**.
- Implemented **5+ key features** including multi-account management, transaction tracking, and categorized expenses.
- Enhanced security and user experience with **ClerkAuth**, serving **1,000+ users**.
- Deployed on **Vercel**, ensuring **99.9% uptime** and optimized for scalability.

Sudoku Solver with Computer Vision | GitHub

Oct. 2024

Technologies: Python, OpenCV, NumPy, Recursive Backtracking, Image Processing

- **Developed** a computer vision-based Sudoku Solver capable of solving puzzles from real-world images.
- Employed **adaptive thresholding** and **contour detection** to locate the puzzle grid, followed by a **perspective transform** for grid extraction.
- Integrated a **recursive backtracking algorithm** to efficiently solve puzzles, handling even complex grids in under 2 seconds.
- Overlaid the solution back onto the original image, creating an intuitive user experience.

Crop Prediction System | Website | GitHub

Sept. 2024

Technologies: Python, scikit-learn, Pandas, NumPy, OpenWeather API, Streamlit

- Created a web-based Crop Predictor integrating **machine learning** and live weather data for crop recommendations.
- Implemented a **Random Forest Classifier** for accurate predictions, allowing users to input soil parameters and select locations.
- Added features like automated weather retrieval, state-city selection, and soil input for a comprehensive farming tool.

Technical Skills

Languages: Python, C, C++, Javascript, TypeScript

Skills: Data Structure & Algorithms, Machine Learning, Git, GitHub

Web Development: HTML, CSS, NodeJS, NextJS, ReactJS, Tailwind CSS, Vercel, Django, Flask, Streamlit

Machine Learning: NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, TensorFlow, OpenCV

Databases: MySQL, PostgreSQL, MongoDB

Achievements

DotSlash 8.0: Selected for a National Level Hackathon from over 1000 participants, organized by ACM, NIT Surat.

Google Cloud Study Jams 2024: Successfully completed hands-on labs on cloud computing and Google Cloud services.

ICPC India Preliminary 2024: Achieved an All India Rank of 635 and Institute Rank 3.

ACM Summer Challenge'24: Achieved a top 20 ranking out of 200+ participants.

Positions of Responsibility

Junior Developer, Google Developer Groups On Campus, NIT Surat

Nov. 2024 - Present

Executive, Association for Computing Machinery, NIT Surat

Aug. 2024 - Present

Core Representative, Nexus, DoAI Cell, NIT Surat

Aug. 2024 - Present