

MADHAV GOHEL

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EDUCATION

Bachelor of Technology - BTech, Information Technology | CSPIT, Charusat University **September 2023 – July 2026**

- Coursework: Advanced Algorithms, Database Management Systems, Artificial Intelligence, Operating Systems, Software Engineering

Diploma in Computer Engineering | Gyanmanjari Diploma Engineering College, GTU **September 2020 – July 2023**

- Coursework: Data Structures, Mobile Computing, Network Security, Web Development

EXPERIENCE

Summer Intern | DSU INFOTECH | Vadodara, Gujarat (Remote) **May 2024 – June 2024**

- Engineered** and optimized web scraping pipelines using Python, leveraging libraries such as BeautifulSoup and Selenium for robust data extraction and transformation across diverse web structures.
- Integrated** scraped data into relational databases and NoSQL stores, ensuring seamless data accessibility for downstream analytics and machine learning models.

Freelance Developer **May 2022 – January 2023**

- Developed** scalable web applications using Python and Flask, designing RESTful APIs and integrating them with front-end frameworks to deliver seamless user experiences.
- Created** and deployed scalable backend systems, utilizing Flask with SQLAlchemy for efficient database management and ensuring robust data integrity across MySQL or PostgreSQL databases.

PROJECTS

Urban Guide

- Built an AI-powered city assistant using LLM, RAG, Ollama, and agents, offering real-time, multilingual information on city services, landmarks, and events.
- Integrated a vector database for efficient data retrieval, enabling seamless, conversational user interactions with up-to-date information. Significantly

Two-Wheeler crash detection with SOS & location tracking

- Enhanced rider safety by detecting accidents using sensors and algorithms, sending SOS alerts and real-time location to emergency contacts for timely assistance
- Optimized algorithms to improve the accuracy of crash detection, resulting in a 30% decrease in false positives

Movies in the City

- Developed an API providing information about movies currently showing in a city in JSON format
- Engineered a scalable web application using Python and Flask, incorporating a robust web scraper that tripled data acquisition efficiency

Covid Dashboard

- Created a dashboard displaying current COVID-19 metrics of the country, including infection rates, recovery rates, and vaccination progress
- Data was scraped from other platforms and presented in interactive graphs using Python and JavaScript also integrated real-time updates to ensure the dashboard always reflects the most current data

ACHIEVEMENTS

- Certifications:**
 - Oracle Cloud Infrastructure 2024 Certified AI Foundations Associate
 - Operating System Fundamentals NPTEL
 - Python for Data Science NPTEL
- Hackathons:** SSIP GUJARAT HACKATHON 2022 Finalist
- College Fests:** Showcased Project in an annual College Fest
- Volunteering:** Smart India Hackathon 2024 Institute Co-ordinator, AWS SCD Co-ordinator

SKILLS

- Languages:** Python, Java , JavaScript, C++
- Operating Systems:** Linux, Windows, Mac
- Databases:** SQL, MySQL, PostgreSQL, MongoDB
- DevOps:** Git, GitHub, Docker