RUDRA PATEL

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Education

LDRP INSTITUTE OF TECHNOLOGY AND RESEARCH

Gujarat, India

B.E. in Computer Engineering (CGPA: 7.39/10)

Oct 2021- May 2025

Skills

Languages Python, SQL, C, HTML, CSS

Databases MySQL, MongoDB, PostgreSQL

Frameworks Django, Django REST Framework, Flask

Libraries OpenCV, Pandas, NumPy, Scikit-learn, Seaborn, Tensorflow

Tools Git/Github, Jupyter Notebook, Postman

Work Experience

Data Science Intern, Prodigy InfoTech - link

1st sept 2024 - 30th sept 2024

- Designed and calculated bar graphs and charts to illustrate the distribution of both categorical and continuous data.
 Cleansed and conducted exploratory data analysis (EDA) to the Titanic dataset, spotting critical ones such as women and children having survival rates at 74 percent.
- Created a decision tree classifier from the Bank Marketing dataset with 85 % accuracy, significantly predicted by age
 and job type. Performed analysis of sentiment in social media data to track shifts in public opinion with 82 percent
 prediction accuracy.
- Studied traffic accident data which exposed 70 % of the accidents were attributable to bad road conditions, and 60 % of the accidents were at night, visualizing the accident hotspots and which were the conditions worsening the problem.

Projects

Expense Tracker Web Application using Diango | Python, Diango, PostgreSQL, HTML, CSS, JS - link Mar 2025

- Architected a full-stack Expense Tracker web application using Django, enabling users to securely register, log in, and manage their financial transactions. The system allows users to add, update, and delete expenses categorized as Food, Transport, Bills, Entertainment, and Others.
- It provides analytical insights by summarizing expenses by month and year using Django's ORM.
- Illustrated with a responsive UI using Bootstrap, the application ensures secure data handling and an intuitive user experience.

Hand Gesture Recognition System | Python, OpenCV, MediaPipe - link

Dec 2024

- Developed a real-time hand gesture recognition system using Python, OpenCV, and MediaPipe, achieving 97% accuracy
- Implemented custom ML classifiers for static and dynamic gestures, processing 19 3D landmarks at 30+ FPS. Created an interactive web interface using Streamlit for real-time parameter tuning and gesture training.
- Enabled gesture-based controls, optimizing performance for smooth real-time processing.

House Price Prediction | Python, Scikit-Learn, Pandas, Numpy, Matplotlib, Seaborn - link

Aug 2024

- Worked on a house price prediction system using Python, Flask, and Scikit-Learn, achieving 85%+ accuracy. Utilized Pandas, NumPy, and Seaborn for data pre-processing, feature engineering, and visualization. Implemented various regression models and fine-tuned hyperparameters to optimize accuracy.
- Designed a Flask-based web app, allowing users to input property details for instant price estimation.
- Conducted exploratory data analysis (EDA) to identify key factors influencing house prices.

Facial Recognition with Attendance System | Python, OpenCV, MySQL - link

Jan 2024

- Made a real-time face recognition system with 90%+ accuracy, leveraging OpenCV and the face recognition library. Used a
 Tkinter-based GUI for effortless user registration and image storage. Integrated MySQL database for attendance tracking,
 automatically logging timestamps. Optimized image processing to recognize faces in under 2 seconds.
- Built a modular system for seamless management of stored facial data.

Certificate

NPTEL Database Management System (DBMS)

Mar 2024