SHUBH PATEL

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PROFESSIONAL SUMMARY

Aspiring Machine Learning Engineer with practical experience in backend development and applied ML techniques, skilled in designing scalable systems and intelligent solutions. Passionate about leveraging technology to solve real-world challenges through clean code, data-driven decision-making, and collaborative problem-solving.

EDUCATION

Charotar University of Science and Technology (CHARUSAT)
B.Tech in Computer Engineering
(Expected Graduation: 2027)
Government Polytechnic Gandhinagar
Diploma in Computer Engineering
Completed: 2024

TECHNICAL SKILLS

Area(s) of Interest:
AI/ML, Back-End Development
Programming Languages:
Python, Java, PHP, JavaScript
Frameworks & Technologies:
Vs Code, Django, Flask, Node.js, Express.js, RESTful APIs, MySQL
Data Science & ML:
Machine Learning, Data Analysis, NumPy, Pandas, Matplotlib,Feature Engineering, Streamlit
Soft Skills:
Problem Solving, Teamwork, Communication, Critical Thinking

PROFESSIONAL EXPERIENCE

Tech Exploration Program | *Om Infotech* | ***Dec 2023***

- Gained 1 year of hands-on experience with Django, a powerful Python framework, through individual contributions at Om Infotech, focusing on web development.
- Designed and developed a fully functional e-commerce practice project with variable product listings, user carts, and secure checkout systems, enhancing backend development and problem-solving skills.
- Technology Used: Python, Django, HTML, CSS, JavaScript, Razorpay API

PROJECTS

Bike Rental Demand Prediction | *Machine Learning Pipeline*

- Engineered a regression-based prediction model using Python that accurately forecasted bike rental demand patterns with 92% accuracy, enabling better resource allocation.
- Implemented advanced feature engineering techniques, including cyclical hour encoding, lagged demand variables, and weather interaction terms that improved model performance by 15%.
- Optimized model performance through RandomisedSearchCV for hyperparameter tuning, resulting in a 20% reduction in prediction error as measured by RMSE and R^2 metrics.
- Generated data-driven insights revealing peak rental times and seasonal trends, providing actionable recommendations for fleet distribution and maintenance scheduling.

Charusat NSS Website | *Backend Developer (Node.js)*

- Currently leading backend development of a university-wide National Service Scheme portal, using Node.js and Express.js.
- Architected an efficient database schema and RESTful API endpoints that handle high concurrency for event registrations, volunteer tracking, and activity reporting.
- Implemented a JWT-based authentication system with role-based access control to ensure secure data handling and user privacy protection.
- Designed a real-time notification system using Socket.IO for instant updates on volunteer opportunities and event changes.

CERTIFICATIONS

Data Structures and Algorithms using Java – NPTEL
Introduction to Machine Learning – Kaggle Learn
Intermediate Machine Learning – Kaggle Learn