# Vishvam Samirkumar Patel

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#### **EDUCATION**

VELLORE INSTITUTE OF TECHNOLOGY

Bachelor of Technology, Computer Science & Engineering

Cumulative GPA: 8.92

KD AMBANI RELIANCE FOUDATION SCHOOL

Higher Secondary Schooling (12<sup>th</sup> Standard)

Percentage: 77.8%

KD AMBANI RELIANCE FOUDATION SCHOOL

Secondary Schooling (10th Standard)

Percentage: 90.8%

Bhopal, Madhya Pradesh Expected (2022 - 2026)

Jamnagar, Gujarat

2021 - 2022

Jamnagar, Gujarat

2019 - 2020

# **TECHNICAL SKILLS**

Programming Languages: C++, Java, Python, JavaScript, Node.js, React

Databases: MySQL, MongoDB Tools & Others: Git & GitHub, Excel

#### **WORK EXPERIENCE**

# JIO Platforms Ltd. – Data Analyst Intern (Certificate) **Application of Machine Learning for Operational Analytics**

Mumbai, India 27.09.2024 - 29.11.2024

- Created and optimized five regression models (Linear, Ridge, Lasso, Random Forest, SVM) with feature engineering and selection (Random Forest importance, correlation matrices, VIF analysis), reducing model complexity by ~25% and improving predictive accuracy by 15%.
- Applied advanced time series forecasting, residual diagnostics, and hyperparameter tuning to capture underlying trends, minimizing overfitting by 20% and boosting model generalization across test datasets by 12%.
- Conducted statistical analysis and systematic evaluation (correlation analysis, feature refinement, performance metrics), which increased R<sup>2</sup> scores by up to 18% and produced more stable, interpretable ML models for decision-making.

### **PROJECTS**

## Voyage Vista | HTML, CSS, JavaScript, React, Node.js, MongoDB

- Engineered a full-stack travel platform using the MERN stack (MongoDB, Express.is, React, Node.is), delivering a 100% mobile-responsive interface tested across desktop, tablet, and mobile devices.
- Designed RESTful APIs with Node.js and Express.js to support full CRUD operations, managing 50+ tour listings, hotel itineraries, and community reviews.
- Implemented advanced interactive features including location-based search and filters, AI-powered chatbot, personalized recommendation engine, and review system, reducing search time and improving user engagement significantly.
- Integrated secure user authentication and authorization using JWT (JSON Web Tokens), safeguarding all user sessions and ensuring secure sign-up/login processes.

#### Traffic Genie: Smart Traffic Management | Python, YOLOv8, OpenCV, Flask, JavaScript, Chart.js [GitHub]

- Developed an intelligent real time traffic monitoring system by training a custom YOLOv8 model with OpenCV to detect and classify multiple vehicle types from live video streams, extracting metrics such as vehicle count and queue density.
- Built a full stack analytics dashboard with Flask, Chart.js and Bootstrap, transforming raw detection outputs into interactive statistical visualizations for traffic flow analysis and decision support.
- Optimized scalability and responsiveness by designing a modular data handling pipeline and responsive UI, ensuring real time updates and smooth visualization even under varying traffic loads.

### **ACADEMIC & EXTRACURRICULAR ACTIVITIES**

Practiced 100+ coding problems on LeetCode, developing proficiency in data structures, algorithms and coding efficiency.

#### **CERTIFICATES**

- **Coursera: -** AWS Cloud Practitioner Essentials
- Coursera: The Bits and Bytes of Computer Networking
- **Udemy:** Learn JAVA Programming Beginner to Master