# Mithil Mistry

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## **EDUCATION**

# Charotar University of Science and Technology

Anand, India

B. Tech. Computer Science and Engineering; CGPA: 7.45/10.0

Sept. 2022 - May 2026

### EXPERIENCE

#### **Hidden Brains**

Ahmedabad, India

- Machine Learning Intern (May 2024 - June 2024)

 $May\ 2024-June\ 2025$ 

Learned Python fundamentals and ML libraries (NumPy, pandas, scikit-learn, TensorFlow). Worked on data preprocessing, model tuning, and real-time inference pipelines for enhancing ride allocation efficiency. Developed a landslide detection model for a client using geospatial features, achieving 85%+ accuracy.

Application Development Intern (May 2025 – June 2025)
 Enhanced the "Clean Rides" app with secure user authentication :

Enhanced the "Clean Rides" app with secure user authentication and optimized booking workflows. Improved performance using Flutter best practices and integrated Firebase for real-time backend connectivity.

# Charusat Space Research Center

May 2024 - June 2024

Research Intern

Anand, India

- Conducted groundbreaking research on Lime Diseases Classification Using ML and Spectrometry
- Developed hybrid models (LSTM/RNN/BiLSTM + SVM/KNN/XGBoost) achieving 98.6% precision

# **PUBLICATIONS**

- [J.1] Hardik Jayswal, Hetvi Desai, Hasti Vakani, Mithil Mistry, Nilesh Dubey et al. (2025). Plant Disease Classification with Spectral Signature Taxonomy and Analysis Software (SSTAS). Software Impacts, Accepted for publication (Web of Science - ESCI, Impact Factor: 1.3, Q3).
- [J.2] Hardik Jayswal, Hetvi Desai, Hasti Vakani, Mithil Mistry, Nilesh Dubey (2025). Symptom-Based Early Detection and Classification of Plant Diseases Using AI-Driven CNN+KNN Fusion Software (ACKFS). Software Impacts, Elsevier. (Impact Factor: 1.5, Q2).
- [C.1] Abhay Nath, Hasti Vakani, Hardik Jayswal, Nilesh Dubeyet al. (2024). Spectral Analysis of Lime Leaves: Advancing Lyme Disease Detection Using Machine Learning and Spectrometry. In 3th World Conference on Information Systems for Business Management. Springer, September 12-13,2024, Bangkok, Thailand.
- [C.2] Hasti vakani, Mithil Mistry, Nitika Sharma, Hardik Jayswal et al. (2025). Obesity Level Prediction Using Machine Learning. In 10th International Congress on Information and Communication Technology (ICICT 2025). Springer, February 18-21, 2025, London.
- [C.3] Mithil Mistry, Hasti Vakani, Mann Patel, Hardik Jayswal et al. (2025). Automated Detection of Potholes Using Deep Learning. In 10th International Congress on Information and Communication Technology (ICICT 2025). Springer, February 18-21, 2025, London.
- [C.4] Nitika Sharma, Hasti Vakani, Mithil Mistry, Hardik Jayswal et al. (2025). Predictive Analysis of Apple Stock Trends Using LSTM Models. Submitted to 5th International Conference on Computer Technology, Management and its Applications (CTMA 2025). Springer, February 28-March 1, 2025, Pune, India.
- [C.5] Mann Patel, Mithil Mistry, Hasti Vakani, Sachin Patel et al. (2025). Anomaly Detection in Industrial Machines Using Echo State Networks. Accepted In International Conference on ICT for Sustainable Development, Springer, July 16–19, 2025, Goa, India.

## **PROJECTS**

- Scorewise GRE Essay Practice Tool | React. is, Node. is, NLP.
  Built a full-stack web app for GRE AWA practice with random topic generator, live timer, typing metrics, and AI feedback.
- **Depth and Dimension Company Website**  $\mathcal{G} \mid HTML$ , CSS, JavaScript, Git · Developed and deployed a business website showcasing the firm's portfolio, branding, and services in a collaborative setting.
- **Donate Now Blood Donation App & | Mongo DB**, React is, Node is Built a full-stack app with JWT authentication, SMS notifications, and user/admin dashboards.
- The Wall Twitter Clone & | Flutter, Dart, Firebase . Developed tweet posting, real-time updates, and authentication with a responsive UI.

 $\begin{array}{c} \textbf{Cube Runner} \mid \textit{C\#, Unity Engine} \\ \textbf{Built a 3D immersive game for a group project; focused on team coordination and game mechanics.} \end{array}$ 

Wisk Wizard | Flask, HTML/CSS, JavaScript Created a web app that suggests recipes based on available ingredients to reduce food waste.

WiFi-Based Attendance Tracker | Flutter, Firebase, Geolocation APIs Developed a fraud-proof attendance system using GPS and Wi-Fi BSSID validation. Submitted for SIH.

Secret Language of Birds | Raspberry Pi, Python, gpiozero
Built a Raspberry Pi-powered interactive bird call exhibit for sanctuaries using LED and sound syncing.

Smart Home Automation | IoT, Relays, Android App.
Implemented lighting, security, and motion sensors with mobile and manual control systems at home.

Emergency Braking Car (ADAS Prototype) | Arduino, Ultrasonic Sensors · Created a small-scale automated vehicle prototype with obstacle detection and emergency braking.

PCB Projects and Simulations | Breadboards, Sensors, Microcontrollers · Implemented multiple circuits including fiber optic mic, burglar alarm, and water level monitor using PCBs.

# TECHNICAL SKILLS

Languages: C/C++, C#, HTML/CSS, Java, JavaScript/TypeScript, Python, SQL Frameworks & Libraries: React.js, Node.js, Express.js, Flutter, Unity Engine

Developer Tools: VS Code, Android Studio, Firebase, MongoDB

Other Skills: Data Structures and Algorithms, OOP, IoT, Game Development, LaTeX

# Extra Curriculars

- \* Arthyantra (CHARUSAT Economic Club): Founder and Joint President Led CHARUSAT's Economics Club, organizing financial literacy events.
- \* The Rotaract Club of CHARUSAT: Treasurer Managed budgeting and coordinated community service initiatives.
- \* Sports: Reached quarter-finals in a state-level Lawn Tennis tournament and volunteered in organizing junior level competitions.
- \* Musician: Achieved distinction in nine Classical Music exams and is proficient in playing multiple instruments.