# Mithil Mistry

## EDUCATION

# Charotar University of Science and Technology

Anand, India

B. Tech. Computer Science and Engineering; CGPA: 7.1/10.0

Sept. 2022 - May 2026

Experience

Hidden Brains May 2024 - June 2024

Application Development Intern

Ahmedabad, India

Anand, India

- Implemented features in "Clean Rides" app, optimizing user interactions by 20%.
- Enhanced development skills in Dart, Flutter, and Firebase.

### Charusat Space Research Center

May 2024 – June 2024

Intern

Contributed to research projects and supported technical operations.

# Research Papers

# Conference Papers

Anomaly Detection in Industrial Machines Using Echo State Networks: Developed a model for real-time industrial anomaly detection, improving accuracy with lower computational cost.

Obesity Level Prediction Using Machine Learning: Created a stacking model with 96.69% accuracy, identifying key predictors like BMI for health insights.

Lime Disease Classification Using Machine Learning and Spectrometry: Leveraged LSTM, RNN, and BiLSTM combined with classifiers to reach over 99% precision, improving disease diagnostics in agriculture.

Automated Detection of Potholes and Speed Bumps Using Deep Learning: Achieved 91.91% accuracy in road anomaly detection with EfficientNetB0, enhancing safety in diverse conditions.

Predictive Analysis of Apple Stock Market Trends: A Data-Driven Approach: Achieved 96.50% accuracy with LSTM, supporting financial forecasting.

# Journal Papers

Plant Diseases Classification with Spectral Signature Taxonomy and Analysis Software

Symptom-Based Early Detection and Classification of Plant Diseases Using AI-Driven CNN+KNN Fusion Software (ACKFS)

#### Projects

Scorewise - GRE Essay Practice Tool & | React.js, Node.js, MongoDB

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 & | HTML, CSS, JavaScript, Git

Developed and deployed a business website showcasing the firm's portfolio, branding, and services in a collaborative setting.

DonateNow - Blood Donation App & | MongoDB, React.js, Node.js

Built a full-stack app with JWT authentication, SMS notifications, and user/admin dashboards.

The Wall - Twitter Clone **6** | Flutter, Dart, Firebase

Developed tweet posting, real-time updates, and authentication with a responsive UI.

Teen Patti Game | C#, Unity

Designed a 2-player card game using RNG logic; expanding to online multiplayer features.

Cube Runner | C#, Unity Engine

Built a 3D immersive game for a group project; focused on team coordination and game mechanics.

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.