

# Rudresh Chovatiya

Data Scientist & Data Researcher

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 GitHub

## PROFILE INFO

Curious by nature and analytical by training, My journey spans managing teams, supporting customers, and streamlining processes—each role sharpening my problem-solving, communication, and pattern-recognition skills. Now, I channel that experience into decoding data with Python, SQL, and visualization tools like Power BI. Whether forecasting trends or building models, I thrive on turning complexity into clarity. I'm here to learn, build, and make data work smarter for real-world impact.

## EDUCATION

### Certification Course of Data Science and AI/ML Development

Red & White Multimedia Education  
2024 - Present

### Bachelor of Science in Physics

Sir. P.T Sarvajanik College of  
Science (V.N.S.G.U)  
2018

## SKILLS

### Languages:-

C, C++ and Python for Data Science

### Database:-

MySQL

### Data Analysis Tools & Libraries:-

Excel, NumPy, Pandas, PowerBI

### Machine Learning:-

Supervised Learning Algorithms  
Support Vector Regression (SVR),  
Decision Tree Regression,  
Random Forest Regression,  
K-Nearest Neighbors Regression (KNN),  
Logistic Regression etc.

### Deep Learning:-

Computer Vision (OpenCV)  
Neural networks  
(ANN, CNN, RNN)

## PROJECT

### Project Name: Nirkhan (AI Surveillance System)

**Libraries:** opencv-python, mediapipe, face\_recognition, customtkinter, tkinter, numpy, pillow, pygame, pydub, psutil.

**AIM :** To build a real-time security surveillance desktop application featuring multi-guard tracking, fugitive detection, and pose-based action recognition (e.g., "Hands Up", "Stillness"). The system utilizes a hybrid AI pipeline (BlazeFace, MediaPipe Pose, MIL Tracker) to monitor IP camera feeds, providing a multi-language GUI (Hindi/English/Marathi/Gujarati) and automated alert logging with snapshot evidence.

### Project Name: Text NLP Application Suite PRO

**Libraries:** streamlit, pandas, torch (PyTorch), transformers (Hugging Face), nltk, textblob, pyspellchecker, pytesseract, wordcloud, matplotlib, beautifulsoup4, emoji.

**AIM :** To develop a cosmic-themed NLP web toolkit with a dual-mode architecture ("Light" vs. "PRO") that offers text analysis tools and allows users to fine-tune GPT-2 models on custom datasets using an advanced preprocessing pipeline.

### Project Name: Voice NLP Suite (Streamlit Pro Edition)

**Libraries:** streamlit, numpy, pandas, librosa, spacy, textblob, soundfile, plotly, parselmouth (Praat), fpdf, torch.

**AIM :** To build a state-of-the-art web application for advanced voice processing, analysis, and cloning. The system allows users to record or upload audio to perform real-time transcription, sentiment analysis, and generating PDF reports, featuring a modern glassmorphism UI.

### Project Name: Taxi fare Prediction Web App

**Libraries:** pandas, numpy, seaborn, matplotlib, scikit-learn (StandardScaler, PowerTransformer, model\_selection, ensemble, metrics), IPython.display, datetime, joblib, pickle, os.

**AIM :** To perform exploratory data analysis (EDA), feature engineering, and build ensemble regression models (Random Forest, Gradient Boosting, Extra Trees, and Stacking) to predict taxi trip total amounts using the NYC Green Taxi dataset. The workflow includes data cleaning, visualization, encoding, outlier removal, scaling, feature selection, model training, evaluation, and model export for deployment.

## Project certificate

Microsoft Excel (2024)

Data Analysis using Microsoft Excel (2024)

Business Analysis & Process Management (2024)

## Appriciation certificate

Star of the Month (October-2021)  
(Hi-Tech Digital Solutions LLP)

Star of the Month (November-2024)  
(Hi-Tech Digital Solutions LLP)

Star of the Month (July-2025)  
(Hi-Tech Digital Solutions LLP)

## SOFT SKILLS

Analytical Thinking

Problem Solving

Communication

Leadership

Adaptability

Python Automation

## Languages

- Gujarati
- Hindi
- English

## Project Name: CineMatch (Streamlit Movie Recommender)

**Libraries:** pandas, numpy, scikit-learn (CountVectorizer, cosine\_similarity), Streamlit , request, re(regex), pickle.

**AIM :** To develop a production-ready content-based movie recommendation web application that allows users to select movies and receive visual recommendations based on shared attributes (tags).

## Project Name: AgriCast 360 Dashboard

**Libraries:** Python (Pandas, NumPy, Scikit-learn), MySQL, Power BI, Open-Meteo API.

**AIM :** To analyze agricultural commodity markets across 19 trading centers in the Gujarat region by integrating historical price records with real-time weather data, identify critical correlations between environmental factors (such as temperature and rainfall) and price volatility, and utilize predictive analytics to forecast seasonal trends and optimize decision-making for stakeholders.

## Project Name: U.S. Airline Delays Dashboard

**Libraries:** Excel Power Query, Power BI.

**AIM :** To analyze flight delay patterns across U.S. airlines and airports, identify root causes of cancellations and delays, and propose data-driven operational and scheduling improvements to enhance airline efficiency and passenger experience

## Project Name: Credit Card Exploratory Data Analysis

**Libraries:** io, openpyxl, numpy, pandas, matplotlib.pyplot, seaborn, plotly.express, matplotlib, plotly.offline, ipywidgets, IPython.core.interactiveshell, plotly.io

**AIM :** The aim is to uncover insights about customer spending and repayment patterns, segment behavior, and relationships between different variables in the credit card data.

## work experience

### 2023 – PRESENT HI-TECH DIGITAL SOLUTIONS LLP

Senior Customer support Representative

- Mentored junior team members and collaborated cross-functionally, fostering data-informed decision-making and enhancing support efficiency through process refinement and performance metrics.

### 2022 – 2023

Customer support Representative

- Engaged with diverse customer queries, applying structured problem-solving and clear communication to resolve issues—skills directly applicable to interpreting and presenting data insights.

### 2019 – 2022

Senior Process Associate

- Demonstrated ability to interpret and work with diverse datasets—both internal and external—to derive meaningful trends, correlations, and business-relevant conclusions.

### 2017-2019

### ARPAN EDUCATION HUB

Manager

- Managed team workflows and resource allocation to support data-driven projects, showcasing strong problem-solving and logical thinking.
- Facilitated stakeholder meetings and cross-functional communication, demonstrating effective interpersonal and collaboration skills.
- Reference: - Mr. Nirbhay Khokhar (Owner)  
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