# SMIT MISTRY

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#### Education

## Sal Engineering and Technical Institute

Sep 2021 – Jul 2025

Bachelor of Engineering in Computer, Minor in Data Science

Ahmedabad, Gujarat, India

CGPA is **8.57** 

# Experience

Udbhav May 2024 – Jul 2024

Machine Learning

Ahmedabad, Gujarat, India

- Extracted 1M+ Images from traffic video and Processed and Optimized data on LabelImg using Python.
- Boosted research by 50% via Tesseract OCR and Yolov8 Object Detection model, resulting in research breakthrough.
- Heightened performance by 25% by implementing Data Augmentation and early stopping techniques.
- $\bullet \ \mathbf{Produced} \ \mathbf{20} + \ \mathrm{visually} \ \mathbf{compelling} \ \mathbf{plots} \ \mathbf{for} \ \mathbf{non\text{-}technical} \ \mathbf{team} \ \mathbf{members} \ \mathbf{with} \ \mathbf{Tensorflow}.$

# **Smart Shopping Cart**

Dec 2023 – Feb 2024

Machine Learning

Ahmedabad, Gujarat, India

- Led a team of 3 in developing Deep Learning Models using TensorFlow GPU to groceries.
- Compiled the dataset by capturing frames from grocery videos and annotating them using LabelImg, creating a dataset of 10,000+ images, and achieving over 70% accuracy on the test set.
- ullet Improved accuracy by 20% using VGG16 CNN model for Object Detection and Transfer Learning.
- Evaluated model performance using statistical metrics such as Precision 85%, Recall 80%, F1-Score 82%, and ROC Curve.

# Sal Engineering and Technical Institute | GitHub

Sep 2023 – Oct 2023

Data Scientist

Ahmedabad, Gujarat, India

- Automated Result Analysis by creating the GTU Result Analyser Web App using Python Pandas library enhancing data manipulation and analysis, reducing manual processing time by 80%.
- Enhanced faculty's result analysis efficiency by 60% via data-driven strategies and visualization.
- Implemented Flask backend to manage server-side operations and routing, Designed a responsive front-end for raising user accessibility by 45%.

## **Projects**

SpeechStream | Transformers, Flask, MongoDB, HTML/CSS/JS | GitHub

May 2024 - Jun 2024

- Created a Flask web application using fine-tuned Wav2Vec2 and SpeechT5 models for speech-to-text and text-to-speech functionalities.
- Leveraged Hugging Face models to enhance speech processing capabilities.
- Engineered backend system utilizing Flask framework and MongoDB database, fortifying login, and signup functionalities with secure user authentication protocols; bolstered data protection and streamlined user verification process, resulting in a 40% decrease in unauthorized access attempts.

Rajkot Municipal Corporation (RMC) Chatbot | Dialogflow, FastAPI, MySQL | GitHub

Dec 2023 - Dec 2023

- Incorporated Dialogflow's NLP and Intent Classification for efficient user interactions.
- Employed FastAPI Python backend for seamless functionality.
- Crafted intuitive frontend using HTML/CSS for optimal user experience.

## **Technical Skills**

- Languages: Python, SQL, Java
- Libraries: Scikit-learn, LightGBM, TensorFlow, PyTorch, Keras, MediaPipe, Pandas, NumPy, Matplotlib, NLTK, Seaborn, XGBoost
- Frameworks: Flask, FastAPI, BentoML
- Software / Tools: MySQL, MongoDB, GitHub
- Technologies / Concepts: Agile Methodology, Software Development Life Cycle, RESTful APIs, NoSQL, Machine Learning, Deep Learning, Recurrent Neural Networks, Convolutional Neural Networks, Natural Language Processing

## COURSE CERTIFICATIONS

### Machine Learning Specialization

Oct 2023 - Dec 2023