

# Diti Patel

Email | LinkedIn | GitHub

## Education

**Lalbhai Dalpatbhai College of Engineering (GTU)**, BE in Electronics and Communication 2021-2025

- GPA: 8.1/10

## Experience

**Research Intern**, Transportation Research Group of India (TRGI) Jan 2024 – Jan 2025  
*GitHub Repo*

- Conducted **Time Series Analysis** on passenger count data from 2018 to 2024, utilizing visualization techniques to identify key trends and patterns.
- Designed and implemented machine learning models, including **Vanilla, Stacked and Bidirectional LSTM, Transformer model**, and **Vector Autoregression (VAR)**, achieving accurate forecast of passenger demand across different time frames.
- Enhanced model performance by integrating **STL Decomposition** for seasonal trend analysis, achieving over **84% accuracy** in passenger count predictions.

**Machine Learning Intern**, The Machine Learning Company, Pune Sept 2024 – Nov 2024  
*GitHub Repo*

- Developed a robust **Object Detection** pipeline using the **YOLOv10** model to identify and crop cube objects from a structured dataset, streamlining the image preprocessing workflow.
- Managed and maintained multiple object detection models, including **Faster R-CNN, Mask R-CNN, and RetinaNet**, with well-documented workflows in Jupyter notebooks for Crack Detection and Cube Cropping.

## Certifications and Training

**AI for Global Goals** Aug 2024

Completed a comprehensive 21-hour course covering advanced topics in representation learning, agentic AI, human-AI alignment, and building GenAI product development and was accepted to attend the **Oxford ML Summer School (OxML 2024)** focusing on Machine Learning for Health & Bio and Representation Learning + GenAI.

**Compilers for AI-ML, NVIDIA** Jun 2024

Participated in the prestigious summer school by NVIDIA and ACM, focusing on advanced **Compiler Optimizations** for AI-ML applications.

## Extracurricular Activities and Leadership

- Google Cloud Facilitator, Google Cloud Community India** (Sep 2023 - Oct 2023)  
– Guided a team of 15 students, educating 150+ peers on GCP, achieving Tier 1 status on campus.
- AI-ML Co-Lead, GDSC LDCE** (Sep 2023 - Jul 2024)  
– Organized workshops on TensorFlow, PyTorch, and ML to enhance students' skills in AI/ML.
- Curator, TEDxPrahlanagar** (Nov 2023 - Nov 2024)  
– Curated speakers for an all-women-centric TEDx event, celebrating the achievements of women across Technology.

## Technologies

**Languages:** Python, SQL, R, C/C++, MATLAB

**Technologies:** TensorFlow, PyTorch, Keras, Scikit-Learn, Pandas, NumPy, Seaborn, Matplotlib, NLTK, Tableau, GitHub, Google Cloud Platform, Arduino