

Tushar Mitra

Bhubaneswar, Odisha | tushar24.mitra@gmail.com

+91 9709229224 | My Website | LinkedIn | GitHub



Summary

Final Year Engineering student specializing in Data Science, Machine Learning, and Gen AI. Proficient in emerging technologies with hands-on project experience. Strong problem-solving, teamwork, and communication skills, complemented by a passion for learning and implementing new technologies.

Education

Kalinga Institute of Industrial Technology, B.Tech in Computer Science and Engineering

2022 – 2026

Bhubaneswar, Odisha

- CGPA: 9.33/10.00

Loyola High School, Central Board of Secondary Education (CBSE)

2009 – 2021

Patna, Bihar

- 10th Score: 93.67%
- 12th Score: 91.8%

Projects

Vision-based Attendance System

December 2024

- Used haarcascade frontalface classifier for this project. Created 3 files-for adding new faces,for recording attendance of existing faces and for displaying the attendance on a web app.
- First, the addfaces.py file is run to add new faces, then the test.py file is run to record attendance of known faces and then the app file.py is run to display the attendance in a csv format on a streamlit web app

Talk with Pdf

January 2025

- Used Google Gemini API Key to implement a Gen AI LLM Application which lets users upload multiple PDFs and later chat with the PDFs to extract relevant required information
- Used different langchain libraries for developing the application. Also used FAISS (Facebook AI Similarity Search) for vector database. Finally, Hosted the Application on 'Streamlit Community Cloud'

Micro Object Detection

March 2025

- Downloaded 'xView satellite imagery dataset' and split it in 70:15:15 ratio for training, validation and testing images. Performed image annotations on them in V7 Labs Darwin by dividing the objects into 4 classes
- Trained the model by taking a small subset of 60 images in the same split ratio using YOLOv12 small as a pre-trained model and fine-tuning its parameters. Achieved good mAP and other metrics for 3 of the 4 classes

Technical Skills

Languages: Python, Java, C, SQL, LaTeX

Database: MySQL, MongoDB

Technologies: Machine Learning, Deep Learning, Object Detection, Computer Vision, Natural Language Processing, Generative AI

Cloud: Amazon Web Services, Google Cloud Platform

Others: Git, Docker

Certifications

AWS Cloud Foundations

AWS Cloud Architecting

Red Hat Linux System Administration I (RH 124)