

Devansh Mittal

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Education

VIT Bhopal University

Int MTech

Major in Computer Science; Minors in Artificial Intelligence and Machine Learning

Cumulative GPA: 8.85/10

Bhopal, Madhya Pradesh

Expected May 2026

12th Standard

Radha Madhav Public School

CBSE

GPA: 76.6%

Bareilly, Uttar Pradesh

Jul 2021

10th Standard

Radha Madhav Public School

CBSE

GPA: 83%

Bareilly, Uttar Pradesh

Jul 2019

Projects

Solar Panel Detection using Deep Learning

Feb 2024 – May 2024

- Situation: Identified the requirement for an automated system to detect rooftop solar Panels in satellite images for energy analysis and planning.
- Task: Developed a deep learning-based object detection model to accurately identify solar panels with 99% confidence.
- Action: Collected Satellite images using a python script. Labeled images containing solar panels using LabelImg and organized datasets in COCO format via Roboflow. Fine-tuned a pretrained Detection Transformer with RetinaNet backbone using 675+ images to enhance detection accuracy. Implemented inference pipelines to generate bounding boxes and confidence scores. Optimized model performance through hyperparameter tuning and dataset augmentation.
- Result: Achieved efficient solar panel detection with 90% accuracy, enabling efficient analysis for renewable energy deployment.
- Technologies used-Python, OpenCV, Roboflow, LabelImg, RetinaNet, Detection Transformer.
- Project Link: https://github.com/devanshmittalexe/Solar_panel_detection_in_satellite_images

Sign Language Detection using Machine Learning

Jun 2022 – Sep 2022

- Situation: Identified the need for an AI-driven system to recognize and interpret sign language gestures for better accessibility.
- Task: Engineered a machine learning model to accurately classify hand gestures from 0-9 for sign language recognition.
- Action: Developed a data collection pipeline and wrote scripts to capture and preprocess hand gestures. Collaborated with hostel mates to collect diverse gestures samples, improving model generalization. Trained and optimized the model.
- Result: Delivered a real-time sign language detection system with 91.5% test accuracy, enhancing accessibility and communication for non-verbal users.
- Technologies used- Mediapipe, OpenCV, Python, Tensorflow.
- Project Link: <https://github.com/rahuln2002/Sign-Language-Recognition-using-LSTM-model>

Technical Skills

- Programming Languages: C/C++, Java, JavaScript, Python.
- Databases: MySQL
- Libraries: OpenCV

Co-curricular

Competitive Programming & Problem Solving

- Solved 180+ problems on [LeetCode](#) with a global rank under 700k.
- Currently solving Striver's A2Z DSA Sheet (ongoing).
- Participated in 10+ [CodeChef](#) contests with a highest rating of ~1300.
- Earned 3-star rating in C++ on [HackerRank](#).

Certifications

- SmartBridge Full-Stack MERN course with MongoDB certification.
- Applied Machine Learning in Python by Michigan University on Coursera.

Feb 2025 – Ongoing

Oct 2022 – Feb 2023

Additional Achievements

- Cleared Round 1 of IIT Kharagpur's Data Science Hackathon. (Team: BYTE BANDITS)
- Silver Medalist (Top 5%) in NPTEL Cloud Computing by IIT Kharagpur.

Additional

Hobbies: Solving Rubik's Cube, Learning Finance, Electronics.

Languages: Hindi, English.