

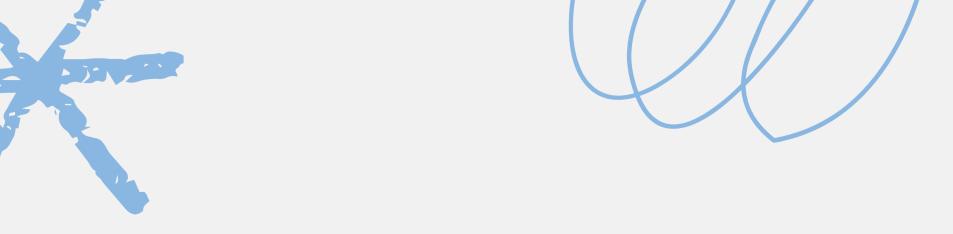
REAL-TIME COMPUTER VISION



Vehicle Detection using YOLOv8

An Al based approaqch to detect, classify and count vehicles from traffic videos using YOLOv8 and OpenCV





### <u>OBJECTIVES</u>

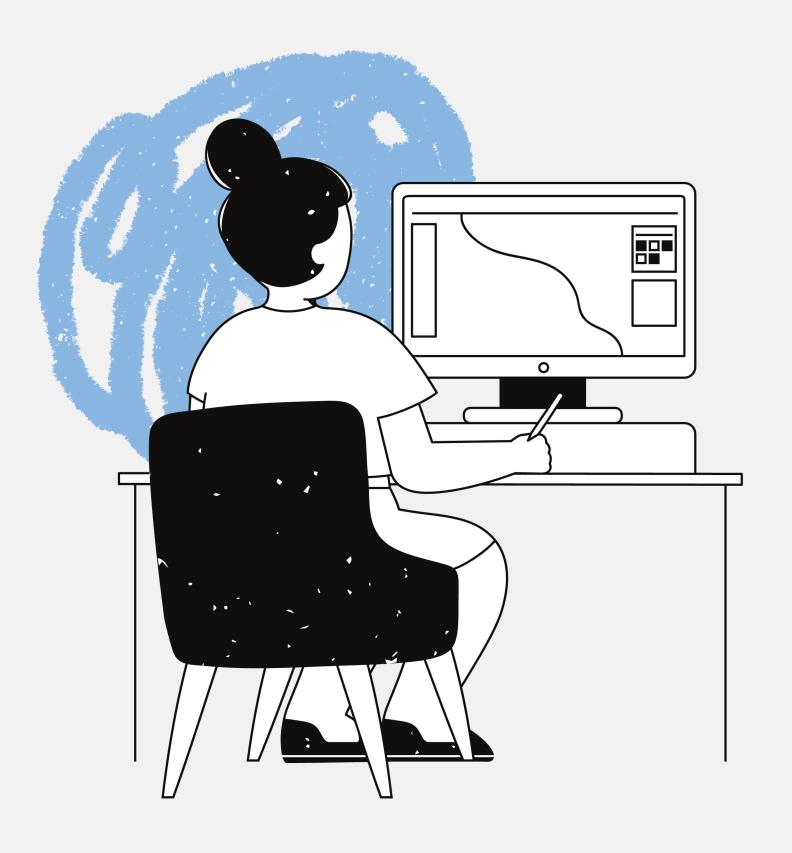
Detect and classify vehicles from a video stream

Generate visual (video) and analytical (CSV) output

LMVs: Car, Scooter, Motorcycle, Auto HMVs: Bus, Truck, Tractor

### Tools & Tech

- Python
- Yolov8
- OpenCV
- CSV for data storage



## Workflow Overview

01

Load YOLOv8 model

02

Normalize and map class names

03

Capture and resize video

Detect objects per

frame

04

Classify and count

LMVs and HMVs

Annonate video & log

counts





### Conclusion

- The solution offers real-time vehicle detection and classification using YOLOv8 . generating both visual and analytical outputs
- Ideal for traffic monitoring and smart surveillance systems.

# Thank you very much!