Heavy vehicle segmentation

* Created an Instance Segmentation model for Heavy Vehicles using the latest Yolov8n-seg algorithm, thus achieving an mAP of 0.932@50.
* The project aims to help with traffic monitoring and management.
* The project provides a greater understanding of the image, thereby identifying vehicles, pedestrians, and surroundings, thus aiding the autonomous driving system and ensuring a safe drive.
* https://github.com/Muhammad-Zeerak-Khan/Heavy-Vehicle-Segmentation-using-YOLOv8

Automatic License Plate Detection

* Created a License Plate Detection model using Yolov8n, Sort and Easyocr, achieving an mAP of 0.91@50.
* Sort Tracking algorithm was used for the smooth detection of the license plates in the sample videos.
* Easyocr provides seamless character recognition of the plates.
* The project aims to aid domains such as traffic enforcement, law enforcement, and parking management.

A highly skilled student seeking a full-time opportunity as a Machine Learning engineer. Proficient in Python, data analysis, machine learning, and model deployment Dedicated to leveraging AI to drive transformative solutions.

* Introduction to Data Science: Data Analysis, Neurocomputing, Image Understanding, Machine Learning, Artificial Intelligence, and Computer Vision
* Created automated pipelines for solving machine learning problems.
* developed a Python script for the automated detection of anomalies in the car sensor data.
* Worked with MD5 files and performed the necessary data manipulation and feature engineering.
* Python scripting for segregating the incoming anomalies with an accuracy of 91.2% and hence charting them as PDFs in respective folders for better visualization
* Created an LSTM model for the auto-completion of sensor test cases for electrical devices with an accuracy of 93%.
* Finally developed an API for testing the LSTM model on remote servers.