Vehicle Performance Prediction

Abstract:

Most players in the automotive sector are investing in ML for their marketing efforts, a much smaller group is putting in place incentives and key performance indicators (KPIs) to use more ML and automation. Closing the gap requires a stronger commitment to developing ML capability that is not just useful but also used.

Problem Statement:

Use regression analysis to predict vehicle performance (mileage i.e kilometre travelled per litre)

Dataset Information:

The data is about the technical specifications of cars.

Column	Description
Kilometer_per_liter	distance in kilometre travelled per litre
cylinders	No of cylinders
displacement	displacement
horsepower	A horsepower is a unit of measurement of power, or the rate at which work is done, usually in reference to the output of engines or motors
weight	Weight of car
acceleration	Acceleration of Car
model year	Model Year of the car
origin	Country origin
car name	Car brand and model name (unique for each instance)

Scope:

- Exploratory data analysis
- Univariate and Bivariate Analysis
- Training linear regression model with SGD for prediction

Learning Outcome:

The students will get a better understanding of how the variables are linked to each other and how the EDA approach will help them gain more insights and knowledge about the data that we have and train Linear Regression using SGD.