

# CAR PRICE PREDICTION MODEL

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# INTRODUCTION

- The Nigerian car market consist of various brands and varied prices .
- Geely Autos wish to understands the price determinants of cars in Nigeria and how best to invest in the market.
- This form the bases of this machine Learning model, designed to predict car prices in Nigeria.



# PROBLEM STATEMENT

- Geely Auto Company aspires to enter the Nigerian market by setting up its manufacturing unit and producing cars locally to compete with their Nigerian, US and European counterparts. The company wants to understand the factors on which the pricing of cars depends. Specifically, they want to understand the factors affecting the pricing of cars in the Nigerian market, since those may be very different from the Chinese market.

# OBJECTIVES



Model the price of cars with the available independent variables(i.e car price determinants)



The model will be a good way for management to understand the pricing dynamics of a new market.

## **CAR PRICE DETERMINANTS**

Depending on any car model in Nigeria, about 16 strong variables defines how price are appreciated, include amongst all:

1. Engine size
2. Highway mpg
3. City mpg
4. Car length
5. Car width
6. Horsepower Etc.

# SUMMARY OF MODEL PERFORMANCE

Three(3) machine learning regression models were used to build, test and train with same datasets to pick the best price prediction system for the company, using

- ❑ Random Forest Regressor Model (RF)
- ❑ Linear Model (LM)
- ❑ Neural Network Model (NN)



# SUMMARY OF MODEL PERFORMANCE CONT...

Measuring performance in testing and training, RF performed optimally, 91% prediction with LM 80% prediction performance.

Going by performance, Random Forest Regressor will be best option to use as prediction model.







THANK YOU!

GEELY AUTO'S