

# Car Prediction Using Machine Learning Algorithms

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**ABSTRACT:** Artificial Intelligence is a technology which enables a machine to simulate human behavior. Machine learning is a subset of AI which allows a machine to automatically learn from past data without programming explicitly. The goal of AI is to make a smart computer system like humans to solve complex problems. In this we have predicted using KNN algorithm which is a Supervised Machine learning Algorithm.

**KEYWORDS:** Machine learning, Supervised Learning, KNN Algorithm, Artificial Intelligence, Classification

## I. INTRODUCTION

In the Generation where, technology has a great impressions on our lives. Different technologies like Artificial Intelligence, Natural Language processing, Knowledge engineering, Machine learning are playing significant role in leading projects of Growing world. AI is a neighborhood which objects or emphasizes the event of machine that imitate human activity like thinking, reasoning and dealing etc. Machine Learning is an important and core part or an application of Artificial Intelligence. Machine Learning provides systems the power to mechanically acquire and reform from experiences without being externally programmed. The most purpose of this system is to make a program which may collect data and obtain trained from it by itself. In Old days peoples like statisticians and developers worked with one another to predict the longer term or to forecast the failure and success etc. for any product. This use to delay in production and launching the merchandise. Maintaining such work under the changing technology and updating data. The primary aim of this to allow machine or computers learn without human intervention and accommodate accordingly. Machine learning made this simpler and faster. Machine Learning is further classified in 4 paradigms:

### 1. Supervised Learning :[2][4][5]

During this learning method, All the info used are labeled and therefore the algorithm learns to predict the output from the input file Which is additionally labeled. The info being labeled makes this method less difficult and fast to execute. This system completes the Given task by first providing the training to them. Each example of this method may be a pair having input value and a desired output Value.

### 2. UnSupervised Learning:

During this method, the info used are unlabeled. Because the data used are unlabeled the algorithm learns to inherit the structure

From the input file. This method uses self learning technique during which it discovers the features of the input by its own and with

Not any set of categories are used. It is technique where the training is based on unlabeled data without any suggestion or Instruction.

### 3. Semi-Supervised Learning:[1][6]

This method inherits both supervised and unsupervised learning; in this method the combination of labeled and Unlabeled data is employed. Bit of Labeled data and enormous of unlabeled data is employed during the training. Unlabeled data is Used pityingly amount of labeled data to get significant improvement in learning precision.

4. Reinforcement Learning:[7]

it's a machine learning technique that permits a representative to find out in an interactive surrounding by trail and error using response from its own action and events. In absence of coaching dataset it sure to learn from its own events.

II. RELATED WORK

In this paper, we propose a replacement multivariate regression approach for financial time series forecasting supported Knowledge shared from referential nearest neighbors. Our approach defines a two-tier architecture. Within the top tier, the closest neighbors that bear referential information for a target statistic are recognized by utilizing the financial association from the Historical data. Next, the longer term status of the target financial statistic is inferred from the heritage of the statistic by employing a multivariate k-Nearest-Neighbour (kNN) regression imitates utilizes the combined knowledge from all applicable referential nearest neighbors. The performance of the proposed multivariate KNN approach is assessed by empirical evaluation of the 9-year SP 500 stock data. The experimental outcome shows that the suggested approach comes up with increasing forecasting accuracy than the referred unvaried KNN regression.[3]

III. METHODOLOGY

A car company contains all tha data for all the cars that are present in the market.We will provide You a dataset of cars along with the attributes of each car along with its popularity.The task is to train a model that can predict the populaity of new cars based on the given attributes.The dataset is a Training dataset which is in .csv file i.e comma seperated file. The .csv file contains the information about a car along with its popularity level.The goal is to predict the popularity of the car based on its attributes.The information in the .csv file is than processed i.e the unwanted,irreleavnt and redundant data is removed which is also known as cleaning of data.This information is than passed to the machine learning algorithm i.e the KNN algorithm for execution. The KNN algorithm executes and analyses the information which is than showed as the result.

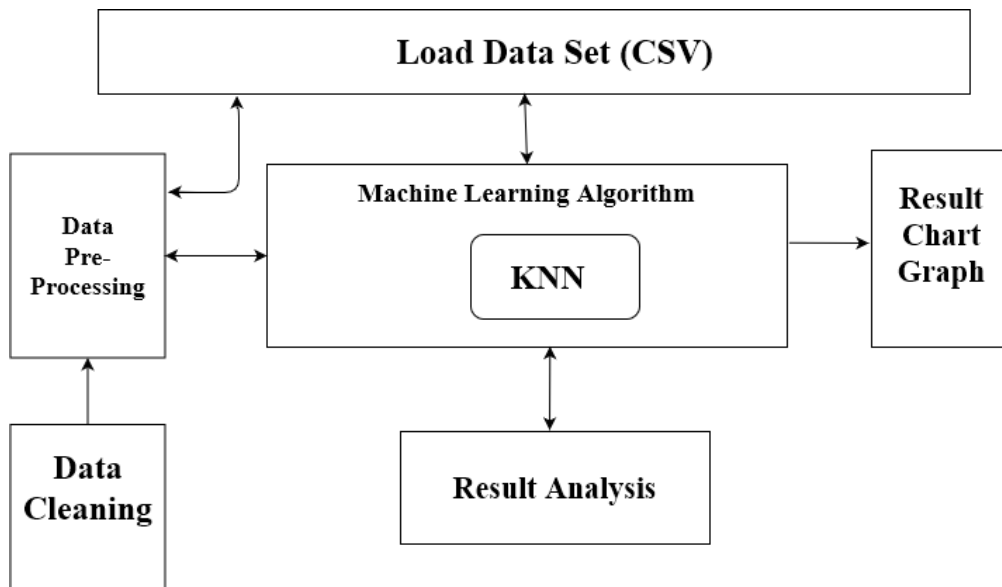


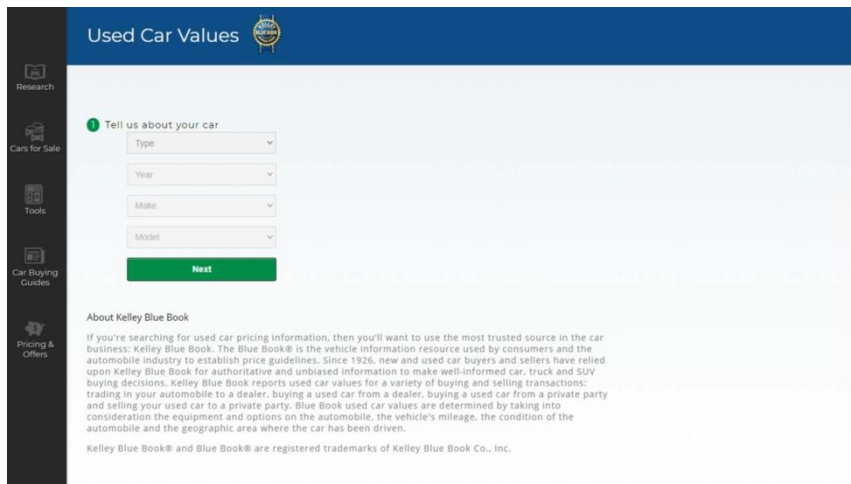
Fig.System Achitecture

#### IV. EXPERIMENTAL RESULTS

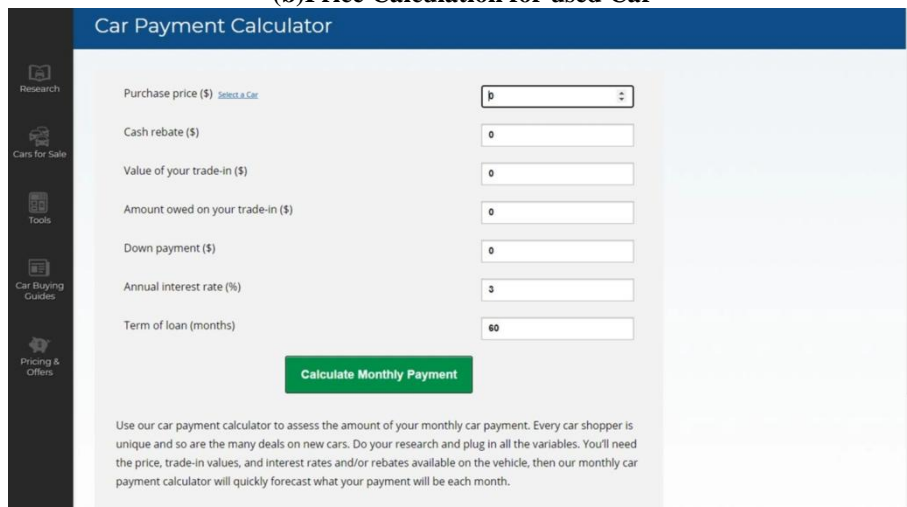
Figures shows the results of our Project



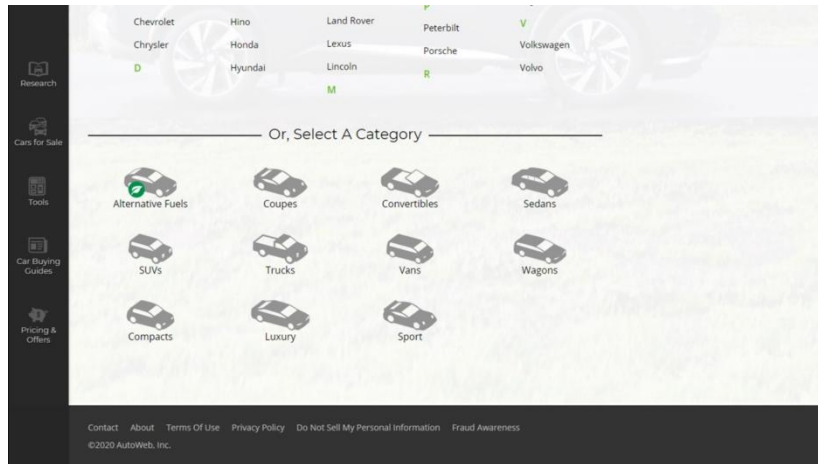
(a) Home Page



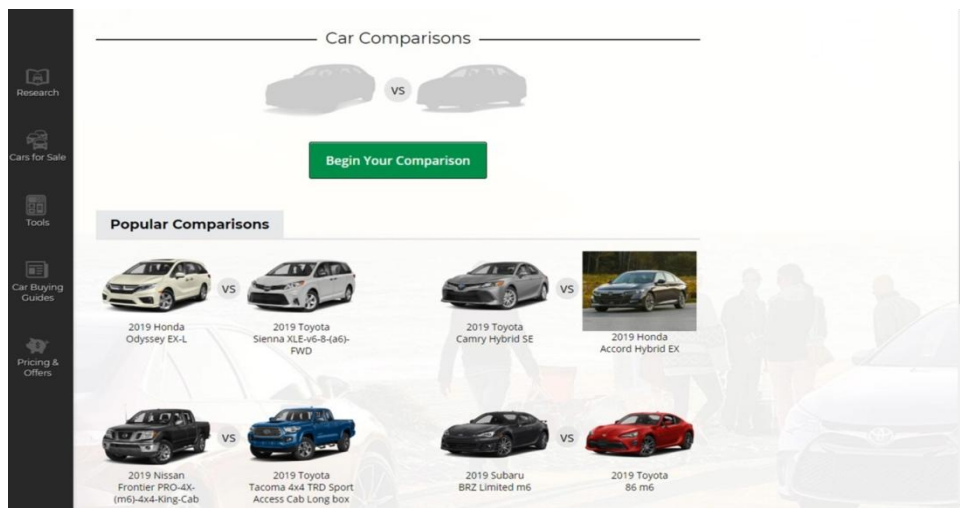
(b) Price Calculation for used Car



(c) Money Calculation



(d) Car Options



(e) Comparison of Cars

## V. CONCLUSION

Machine learning is a fast and growing approach to resolve the real world problems in this paper KNN algorithm machine learning technique have been used to forecast the prediction of the cars. It will make the user get the car of his priority of recognition and features along with his/her budget. A future work we intend to collect more accurate data and to use more advanced techniques like artificial neural networks ,fuzzy logic and gentic algorithms for prediction.

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