**Nalaiya Thiran Project**

**Literature Survey**

**Team Members:**

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| **Paper Title** | **Citation** | **Descricption** |
| Price Evaluation Model in Second-hand Car System  based on BP Neural Network Theory | Sun, Ning; Bai, Hongxi; Geng, Yuxia; Shi, Huizhu (2017). *[IEEE 2017 18th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD) - Kanazawa, Japan (2017.6.26-2017.6.28)] 2017 18th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD) - Price evaluation model in second-hand car system based on BP neural network theory. , (), 431–436.*doi:10.1109/SNPD.2017.8022758 | Introduces an application of the online  second-hand car price evaluation model, and analyze the  drawbacks of the traditional formula method and the accuracy  of the proposed model. on the basis of the BP neural network  algorithm, we optimize the algorithm locally, which greatly  improves the speed and the accuracy of this model and makes  the system have the practical application value |
| Price Prediction of Used Cars Using Machine Learning | Mr. Ram Prashath R , Nithish C N , Ajith Kumar J “Price Prediction of Used Cars Using Machine Learning” International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538 Volume 10 Issue V May 2022- Available at www.ijraset.com | Three algorithms were used: Linear, Lasso, and Ridge Regression. SVM classifier separated the data into two portions for training and testing purposes (Support Vector Machine). i.e., 75% of the data was used for machine learning training and 25% of the data was used for machine learning testing. The three machine learning models' accuracy was tested and compared against one another. This is an important comparison between single and multiple groups of machine learning algorithms. As a result, this model will assist in predicting the car's actual price |
| USED CAR PRICE PREDICTION | Praful Rane, Deep Pandya, Dhawal Kotak  **“**USED CAR PRICE PREDICTION” International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 08 Issue: 04 | Apr 2021 www.irjet.net p-ISSN: 2395-0072 | . The proposed system will help to determine the accurate price of used car price prediction. This paper compares 3 different algorithms for machine learning : Linear Regression, Lasso Regression and Ridge Regression. |
| Vehicle Price Prediction System using Machine Learning Techniques | Kanwal Noor, Sadaqat Jan “Vehicle Price Prediction System using Machine Learning Techniques” International Journal of Computer Applications (0975 – 8887) Volume 167 – No.9, June 2017 | data set used in this paper can be very valuable in conducting similar research using different prediction techniques. The prices of vehicles can be predicted using this data set on same or different prediction software as well. The data obtained under this research facilitated in prediction of prices of used cars through linear regression method. Many assumptions were made on the basis of the data set. The proposed system evaluated variables and selected the most relevant variables out of the dataset and reduced the complexity of model by eliminating unrelated variables during processing and analysis phase. The future price prediction of used cars with the help of same data set will comprise of using fuzzy logic, KNN and genetic algorithm. |
| Car Price Prediction using Machine Learning Techniques | Enis Gegic, Becir Isakovic, Dino Keco, Zerina Masetic, Jasmin Kevric “Car Price Prediction using Machine Learning Techniques” TEM Journal. Volume 8, Issue 1, Pages 113-118, ISSN 2217-8309, DOI: 10.18421/TEM81-16, February 2019. | g single machine algorithm on the data set accuracy was less than 50%. Therefore, the ensemble of multiple machine learning algorithms has been proposed and this combination of ML methods gains accuracy of 92.38%. This is significant improvement compared to single machine learning method approach. However, the drawback of the proposed system is that it consumes much more computational resources than single machine learning algorithm. |
| Forecasting Vehicle Prices using Machine Learning Techniques | Ms. R. Uma , J. Kamal , G. Sri Siva Thandavan, S. Raghul “Forecasting Vehicle Prices using Machine Learning Techniques” International Journal of Engineering Research & Technology (IJERT) http://www.ijert.org ISSN: 2278-0181 IJERTV11IS060105 Vol. 11 Issue 06, June-2022 | In this project work comparable results of both feature selection algorithms and classifier. This combination has achieved maximum accuracy and selected minimum but most appropriate features. It is important to note that in forward selection by adding irrelevant or redundant features to the data set decreases the efficiency of both classifiers. While in backward selection if we remove any important feature from the data set, its efficiency decreases. The main reason of low accuracy rate is low number of instances in the data set. Since CatBoost regressor has the lowest Mean Absolute Error (MAE) and Root Mean Squared Error (RMSE) it is suggested as the best model. |
| **Predicting the Price of Used Cars using Machine Learning**  **Techniques** | **Sameerchand Pudaruth “Predicting the Price of Used Cars using Machine Learning**  **Techniques”** International Journal of Information & Computation Technology.  ISSN 0974-2239 Volume 4, Number 7 (2014), pp. 753-764  © International Research Publications House  http://www. irphouse.com | the price of used cars in Mauritius. The mean error with linear regression was about  Rs51, 000 while for kNN it was about Rs27, 000 for Nissan cars and about Rs45, 000  for Toyota cars. J48 and NaiveBayes accuracy dangled between 60-70% for different  combinations of parameters |