Literature survey

Chejarla Venkat Narayana et.al [1] (2021) proposed machine learning techniques to predict the price of used cars . predictive analytical models will be a great add-on to business mainly for assisting the decision making process. The major objective of this paper is to build a prediction model i.e., a fair price mechanism to predict the cars selling price .

Shen Gongqi et.al [2] (2011) proposed a model for predicting the residual value of the private used car with various conditions. Back Propagation Neural Network (NN) and Nonlinear Curve Fit was established in these models. A set of schemed data was used to train the NN and reached the training goal. Finally, the schemed data as inputs and the NN outputs were organised for nonlinear curve fit. This proposed model is feasible and accurate for residual value prediction of the used cars with various conditions.

Nitis Monburinon et.al [3] (2018) conducted a comparative study on performance of regression based on supervised machine learning models. Each model is trained using data of used car market collected from e-commerce website and then and then data preparation processed by using python programming language

Feng Wang et.al [4] (2021) proposed using machine learning algorithms to predict the price of used cars with less human intervention to make the results more objective. The method used is to preprocess the dataset through Python's Pycaret package and compare the performance of each algorithm through the algorithm comparison function, Extra Trees Regressor, Random Forest Regressor performs relatively well.

Janke Varshitha et.al [5] (2022) uses Supervised learning-based Artificial Neural Network model and Random Forest Machine Learning model which can learn from the car dataset provided to it. This work presents a working model for used car price prediction with a low error value. A considerable number of distinct attributes are examined for reliable and accurate predictions. The results obtained agree with theoretical predictions and have shown improvement over models which use simple linear models

Chejarla Venkata Narayana et.al [6] (2022) developed a prediction model that can estimate the selling price of used cars based on key factors. Machine learning techniques such as Random Forest Regression, Feature engineering techniques such as Extra Trees Regression are employed to accomplish the goal as Random Forest Regression is modelled for prediction analysis and Extra Trees Regression fits the number of decision trees.

Shengqiang Han et.al [7] (2022) proposed the special "e-commerce commodity" to to predict the price of second-hand cars., which includes data preprocessing and feature screening. The author constructs five regression models using the feature attributes obtained by the feature engineering for training, and evaluated. The Random Forest and XGBoost are weighted and mixed to get a novel regression model. When comparing to other models the five regression models (novel regression model) is better for prediction.

Mustapha Hankar et.al [8] (2022) applied several regression techniques based on supervised machine learning to predict the resale price of used cars given many factors such as mileage, fuel type, fiscal power, mark, model, and the production year of the car. In all tested models, gradient boosting regressor showed a high R-squared score and low root mean square error

References:

- [1] C. V. Narayana, C. L. Likhitha, S. Bademiya and K. Kusumanjali (2021), "Machine Learning Techniques To Predict The Price Of Used Cars: Predictive Analytics in Retail Business," Second International Conference on Electronics and Sustainable Communication Systems (ICESC), 2021, pp. 1680-1687, doi: 10.1109/ICESC51422.2021.9532845.
- [2] S. Gongqi, W. Yansong and Z. Qiang (2011), "New Model for Residual Value Prediction of the Used Car Based on BP Neural Network and Nonlinear Curve Fit," Third International Conference on Measuring Technology and Mechatronics Automation, 2011, pp. 682-685, doi: 10.1109/ICMTMA.2011.455.

- [3] N. Monburinon, P. Chertchom, T. Kaewkiriya, S. Rungpheung, S. Buya and P. Boonpou (2018), "Prediction of prices for used car by using regression models," 5th International Conference on Business and Industrial Research (ICBIR), 2018, pp. 115-119, doi: 10.1109/ICBIR.2018.8391177.
- [4] F. Wang, X. Zhang and Q. Wang (2021), "Prediction of Used Car Price Based on Supervised Learning Algorithm," International Conference on Networking, Communications and Information Technology (NetCIT), 2021, pp. 143-147, doi: 10.1109/NetCIT54147.2021.00036.
- [5] J. Varshitha, K. Jahnavi and C. Lakshmi (2022), "Prediction Of Used Car Prices Using Artificial Neural Networks And Machine Learning," International Conference on Computer Communication and Informatics (ICCCI), 2022, pp. 1-4, doi: 10.1109/ICCCI54379.2022.9740817.
- [6] C. V. Narayana, N. O. G. Madhuri, A. NagaSindhu, M. Aksha and C. Naveen (2022), "Second Sale Car Price Prediction using Machine Learning Algorithm," 7th International Conference on Communication and Electronics Systems (ICCES), 2022, pp. 1171-1177, doi: 10.1109/ICCES54183.2022.9835872.
- [7] S. Han, J. Qu, J. Song and Z. Liu (2022), "Second-hand Car Price Prediction Based on a Mixed-Weighted Regression Model," 7th International Conference on Big Data Analytics (ICBDA), 2022, pp. 90-95, doi: 10.1109/ICBDA55095.2022.9760371.)
- [8] M. Hankar, M. Birjali and A. Beni-Hssane (2022), "Used Car Price Prediction using Machine Learning: A Case Study," 11th International Symposium on Signal, Image, Video and Communications (ISIVC), 2022, pp. 1-4, doi: 10.1109/ISIVC54825.2022.9800719.