

# ***CAR RESALE VALUE PREDICTION***

## ***LITERATURE SURVEY***

1. **TITLE** : USED CAR PRICE PREDICTION  
**AUTHOR:** Praful Rane,Deep Pandya,Dhawal Kotak  
**PUBLICATION:** International Research Journal of Engineering and Technology (IRJET) Published in April 4,2021  
**TECHNOLOGY:** Random Forest Regression, Hyper parameters Random forest, Extra-tree Regressor  
**ADVANTAGES:** It is estimated that a car's value depreciated to almost 50%. The calculation for the first year is about 20%. That means if you buy a used car that was launched a year ago, you can save upto 20% on its original cost.  
**DISADVANTAGES:** Even we curated a list of car that are available under 50,000 but that wasn't for you to buy and use for your daily commute. Usually, these cars are lemons. They look fine on the outside but can land you in huge repair costs while you use them.
2. **TITLE:** Car Price Prediction using Machine Learning  
**AUTHOR:** Aditya Nikhade,Rohan Borde  
**PUBLICATION:** International Advanced Research Journal in Science, Engineering and Technology Published in April 4,2022  
**TECHNOLOGY:** Linear Regression, Ridge Regression and Lasso Regression  
**ADVANTAGES:** But the insurance premium for a new car is comparatively higher than an old car. If you search for a good vehicle in the used car market, the previous owner has already paid the hefty premiums when the car was new.  
**DISADVANTAGES:** However, banks and loan providers usually charge a higher rate of interest on a used car loan than they do on a new car loan. Their need to earn more anyhow so here's the catch.

- 3. TITLE:** Forecasting Vehicle Prices using Machine Learning Techniques  
**AUTHOR:** R. Uma, J. Kamal ,G. Sri Siva Thandavan ,S. Raghul  
**PUBLICATION:** INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (IJERT) Published in June 15,2022  
**TECHNOLOGY:** Random Forest, XGBoost, LightGBM, CatBoost, Extra Trees  
**ADVANTAGES:** In my case, I bought a Maruti Suzuki car from a True Value dealership and the car was still under its original warranty from the factory. So I got dual benefits. will get True Value's additional warranty.  
**DISADVANTAGES:** Find a car that has got a good engine and suspension but lacks on features because its a lower variant. On the other hand, you find a higher variant model that has not been maintained properly a bit challenging.
- 4. TITLE:** Price Prediction of Used Cars Using Machine Learning  
**AUTHOR:** Mr. Ram Prashath R, Nithish C N, Ajith Kumar J  
**PUBLICATION:** International Journal For Research in Applied Science and Engineering Technology Published in May 28,2022  
**TECHNOLOGY:** Lasso Regression, Ridge Regression, Linear Regression  
**ADVANTAGES:** In the used car market, this strategy can benefit vendors, purchasers, and car manufacturers. It can then produce a reasonably accurate price estimate based on the data that users provide.  
**DISADVANTAGES:** Due to the huge requirement of used cars and lack of experts who can determine the correct valuation, there is an utmost need of bridging this gap between sellers and buyers.
- 5. TITLE:** Used car price prediction  
**AUTHOR:** Abhishek Jha, Dr. Ramveer Singh Manish, Imran Saifi, Shipra Srivastava  
**PUBLICATION:** International Journal of Advance Research, Ideas and Innovations in Technology(IJARIIT) Published in July 19,2021  
**TECHNOLOGY:** Python, Flask, Pandas, Numpy, Seaborn, Sklearn, Matplotlib, Random Forest Regressor.  
**ADVANTAGES:** While it's true that it's harder to get financing as easily as a new car, you get to pay a lot lesser in the case of used cars. The same goes for insurance too as you will be paying a lesser insurance bill.  
**DISADVANTAGES:** When you buy a new car, it's made to order. You have the option of picking the color, the features, whether or not you want a sunroof, and more. When you buy a used car, you get what you pay for. If the car has a crappy radio, you'll have to deal with it or pay to have it replaced.

- 6. TITLE:** Predictive Analysis of Used Car Prices Using Machine Learning  
**AUTHOR:** Ashutosh Datt Sharma, Vibhor Sharma, Sahil Mittal, Gautam Jain, Sudha Narang  
**PUBLICATION:** International Research Journal of Modernization in Engineering Technology and Science Published in June 6,2021  
**TECHNOLOGY:** Random Forest Regression(Python, Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, Plotly, Pickle, HTML, CSS, Flask, Jsonify)  
**ADVANTAGES:** That's because modifying it during the 3- to the 5 years since it was bought will void the warranty. If the 2nd hand vehicle you plan to buy is past that period, you're now free to "pimp" your ride.  
**DISADVANTAGES:** Vehicles went from having CD players to auxiliary plugs to Bluetooth connections. When you purchase a used car, there's a chance you'll be getting older and less reliable technology.
- 7. TITLE:** Used Car Price Prediction using K-Nearest Neighbor Based Model  
**AUTHOR:** K.Samruddhi, Dr. R.Ashok Kumar  
**PUBLICATION:** International Journal of Innovative Research in Applied Sciences and Engineering (IJIRASE) Published in September 2020  
**TECHNOLOGY:** K Nearest Neighbor Regression Crossvalidation, K-Fold.  
**ADVANTAGES:** When you decide to sell your car, the depreciation value is lesser on a used car than a new one, as most of the depreciation happens in the first two or three years.  
**DISADVANTAGES:** While you will be saving on lesser down payment and insurance costs, a used car comes with years of wear and tear in its parts and thousands of kilometers in its odo. That equals more time and money for maintenance
- 8. TITLE:** Used Cars Price Prediction using Supervised Learning Techniques  
**AUTHOR:** Mukkesh Ganesh, Pattabiraman Venkatasubbu  
**PUBLICATION:** International Journal of Engineering and Advanced Technology Published in December  
**TECHNOLOGY:** ANOVA, Lasso Regression, Regression Tree, Tukey's Test  
**ADVANTAGES:** If you buy a used car from a brand authorised dealership, you get a warranty on the repair. Read this carefully. In my case, I bought a Maruti Suzuki car from a True Value dealership and the car was still under its original warranty from the factory.  
**DISADVANTAGES:** The case with the used car market is a little different. There is no special month, they don't have to worry about the year ends too. Although the prices are obviously lower in the used car markets, you don't get that much "discounts".

- 9. TITLE:** Car Price Prediction using Machine Learning Techniques  
**AUTHOR:** Enis Gegic,Becir Isakovic,Dino Keco Zerina Masetic, Jasmin Kevric  
**PUBLICATION:** TEM Journal Published in February 16,2019  
**TECHNOLOGY:** Artificial Neural Network, Support Vector Machine and Random Forest  
**ADVANTAGES:** The most obvious advantage among pros and cons of buying a used car is that you get the car at a cheaper price therefore you have to apply for a loan of a lesser amount and therefore, you are liable to pay a lesser interest on that too.  
**DISADVANTAGES:** The manufacturer is not responsible for that. Provided, if the car comes with an already existing warranty straight from the manufacturer, you can get it transferred but you won't get any warranty/guarantee if you buy from an individual.
- 10. TITLE:** Predicting the Price of Used Cars using Machine Learning Techniques  
**AUTHOR:** Sameerchand Pudaruth  
**PUBLICATION:** International Journal of Information & Computation Technology Published In 2014  
**TECHNOLOGY:** Multiple linear regression analysis, k-nearest neighbours , naive bayes and decision trees  
**ADVANTAGES:** This is the major differential between a new car and a used car. For the same cost of a new car, you can buy a used car from a couple of segments above. Imagine getting a D-segment car for the price of top-end premium hatchback.  
**DISADVANTAGES:** While you will be saving on lesser down payment and insurance costs, a used car comes with years of wear and tear in its parts and thousands of kilometers in its odometer.