Intelligent vehicle Damage Assessment And Cost Estimator For Insurance Companies

INTRODUCTION:

Currently, AI is advancing at a great pace and deep learning is one of the contributors to that. It is good to understand the basics of deep learning as they are changing the world we live. Deep learning is a sub-field of machine learning dealing with algorithms inspired by the structure and function of the brain called artificial neural networks. In other words, It mirrors the functioning of our brains Deep learning algorithms are similar to how nervous system structured where each neuron connected each other and passing information. One of the differences between machine learning and deep learning model is on the feature extraction area. Feature extraction is done by human in machine learning whereas deep learning model figures out by itself Today, in the car insurance industry, a lot of money is wasted due to claims leakage. Money lost through claims management inefficiencies that ultimately result from failures in existing processes (manual and automated). In other words, it's the difference between what you did spend and what you should have spent on a claim. The cause can be procedural, such as from inefficient claim processing or improper/errant payments, or from human error, such as poor decision-making, customer service, or even fraud. Claim Leakage is often discovered through an audit of closed claim files. CNN is used as the default model for anything to deal with images. Hence in this project, we employ Convolutional Neural Network (CNN) based methods for classification of car damage types. Specifically, we consider common damage types such as Team Id : PNT2022TMID16910 bumper dent, door dent, glass shatter, headlamp broken, tail lamp broken, scratch and smash. Nowadays there are papers that have mentioned the use of Recurrent Neural Network (RNN) for the image recognition. Traditionally RNNs are being used for text and speech recognition. According to study after experimenting with many techniques such as directly training a CNN, pre-training a CNN using auto encoder followed by fine-tuning, using transfer learning from large CNN's trained on Image Net and building an ensemble

classifier on top of the set of pretrained classifiers. We observe that transfer learning combined with ensemble learning works the best

PROBLEM STATEMENT:

Mr.Aravindh is a 50 years old man. He had a own Car and he worked at basic salary for past 30 Years , In this 30 Years he Faced a problem in Choosing Car Damage and Insurance claim.

- Vimal wants to know the better recommendation for insurance claiming.
- He has faced huge losses for a long time.
- This problem is usually faced by lot of Customers.
- Mr. Vimal needs to know the result immediately for Insuranceclaim.

Who does the problem affect?

- Persons wants to claim the assessmentamount

What are the boundaries of the problem?

- People whos vehicle and facing Issues of Insurance claiming

What is the issue?

- The vehicle is damaged, then the next step is that the user has already insured the car with the insurance company, then the customer compares the calculated amount, and then getting a lower amount, so the valuation processcannot be seen.

When does the issue occur?

- The issues occurred in damage part notfully estimation interior part not estimated so issues occur in company side.

Where does the issue occur?

- The issue occurs in Automobile industry interior part damage not fully estimated so issues occur in companyside, particularly City side.

Why is it important that we fix theproblem?

- The required for Automobile industry day by developing so the opposite side accident countalso increase accident car owner has claim the actual amount of damage so they consider to fix problem And also

customer cansee the each and every part repairing cost that problem also ratified in this process

What solution to solve this issue?

- An automated system is introduced to identify different diseases on plants bychecking the symptoms shown on the leaves of the plant.

What methodology used to solvethe issue?

- Deep learning techniques are used toidentify the specific part of damage repair cost and suggest modify cost rate