Mobile Base Solution for Individuals with Limited Knowledge about Cars

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Abstract

Different modes of transportation were discovered by our ancestors from ancient times. Currently, the majority of people choose to purchase a personal automobile for transport needs. However, most people are not automobile industry experts. As a result, the majority of people have trouble when recognizing cars. Due to numerous variations of a single vehicle model, even an expert has trouble correctly identifying a certain car model. People must take into account a number of factors before purchasing a specific automobile. Some of crucial factors are service costs and future market prices. Ordinary people require the assistance of a professional when estimating the market price of a car and calculating the cost of servicing a car. Accidents can also occur at any time when driving a car often. In similar circumstances, consumers require the assistance of an insurance agent or a technician to estimate the cost of damage repair. In this study, we provide a way for non-automotive experts to use their smartphones to identify car models, forecast future market prices, determine and forecast servicing costs, and estimate minor damage repair costs. This paper demonstrates how we accomplished aforementioned tasks using YOLO V4, Multiple Linear Regression, Random Forest Classifier and Faster RCNN.

Keywords

Yolov4, Multiple Linear Regression, Random Forest Classifier, Faster RCNN, Object Recognition, Forecasting