SNS COLLEGE OF TECHNOLOGY

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2nd Review

CAR DAMAGE DETECTOR

BATCH NO - 7

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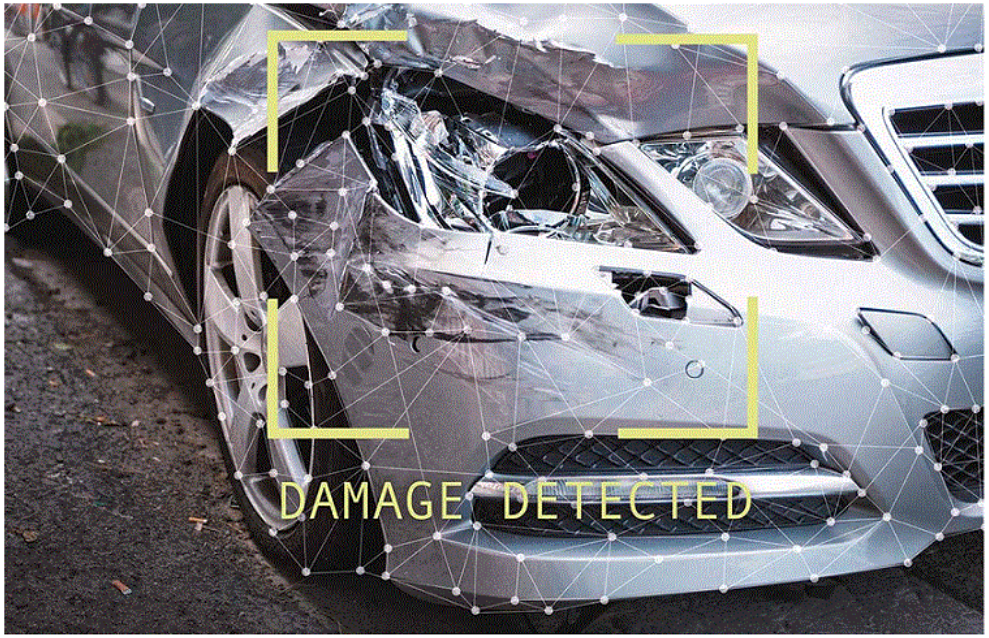
ABSTRACT

- Image-based vehicle Damage Processing is an important area with a large scope for automation.
- In this paper, we consider the problem of car damage classification, where some of the categories can be fine – Granular However, due to a small set of labeled data, it does not work well.
- Experimental results show that transfer learning works better than domain-specific fine-tuning.

INTRODUCTION

- In the automobile industry, a lot of money is wasted due to claims leakage and underwriting leakage.
- Visual inspection and validation have been used to reduce such effects.
- We employ convolutional neural networks to capture the images and we can detect the classification of car damage types.
- We consider the common damage types such as bumper dent, door dent, glass shatter, headlamp broken, and side mirror broken then the engine damaged parts then the scratch and smash areas.
- We observe that transfer learning combined with ensemble learning works the best.
- We also devise a method to localize a particular damage type.

- When a vehicle’s structural support is damaged, it can make the car too unstable to drive or put other parts of the car that the frame supports at risk.
- In turn, these potential hazards can compromise passenger safety, making the car too unsafe to drive.

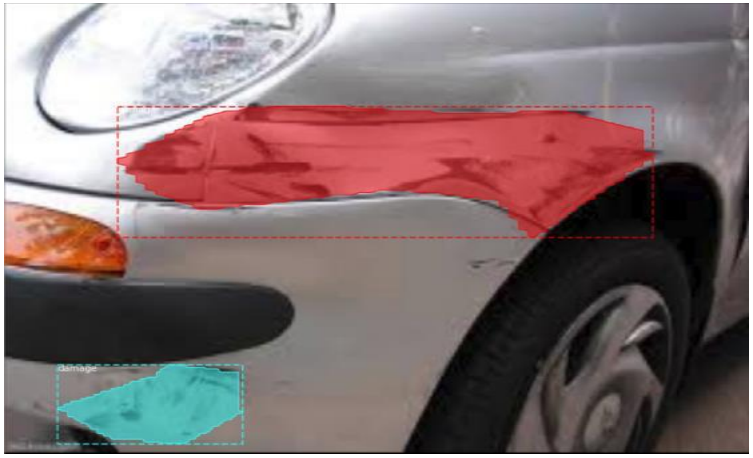


PROBLEM STATEMENT

- There is no time to check the condition of the cars if any problem.
- And so many common peoples did not understand what is damage in the car.
- If they cannot find the exact solution have to search inside the car what type of damage is occurred.
- Then the people cannot find what is the condition of the parts inside the car and they cannot find the exact accuracy.
- Then there will be waste of time to remove until we can’t find the solution. And they can’t sell the damaged parts online and it will be a waste of money for the people.

EXISTING SYSTEM

- There is no proper existing system for car damage detectors. There are only partial systems like detection methods and capturing images of the damaged parts.

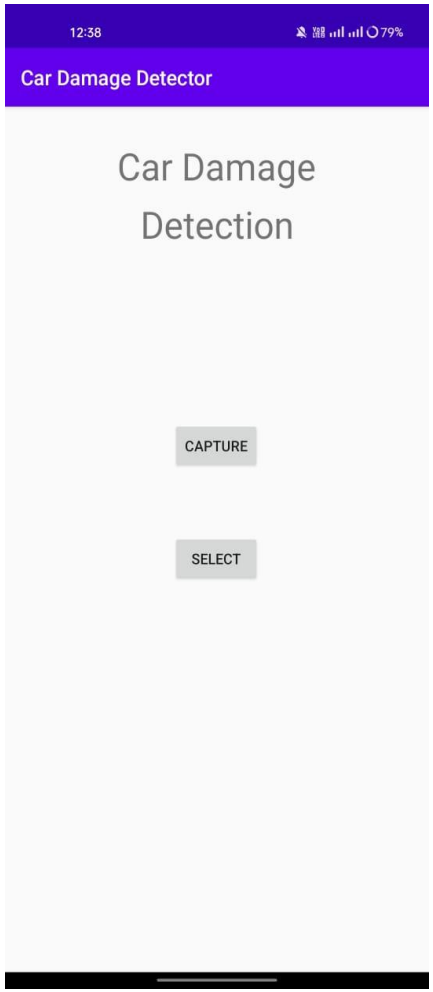


- Collect and store images of the car's exterior at different angles.
- Use a Convolutional Neural Network (CNN) to scan images and detect any potential damage.
- Use an object detection algorithm to accurately localize any damage detected.
- Use a semantic segmentation algorithm to classify the damage into different classes (E.g. dents, scratches, etc.).
- Identify and mark the damaged areas on the image.
- Create a detailed report of the detected damage and its severity.
- Store the report in a database for future reference

PROPOSED SYSTEM

- Car Damage detection will scan accurately . The damaged parts, it will show us the condition of the parts users can sell the damaged parts online through our project.

UPDATION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Car Damage Detector
Car Damage Detection
CAPTURE
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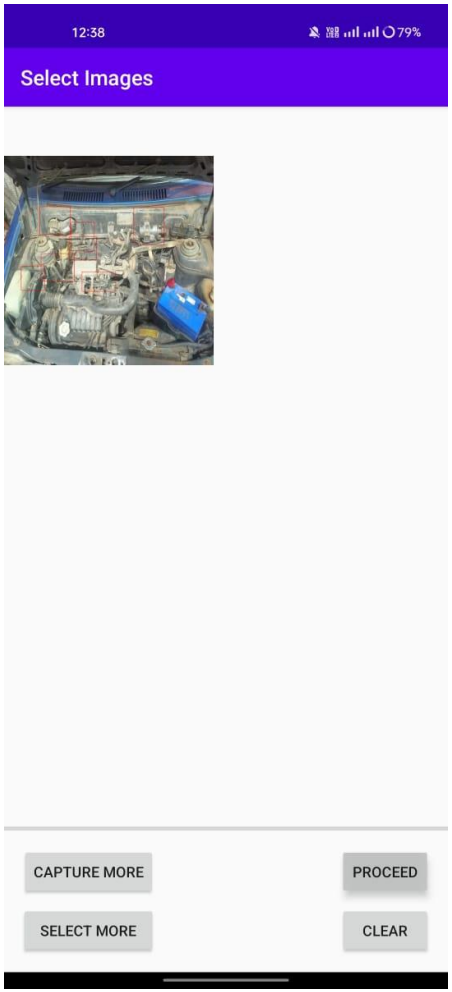
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