

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

The individuals and businesses that purchase goods and services from another business

CS

6. CUSTOMER CONSTRAINTS

- ❑ Flask – Python web framework
- ❑ Bootstrap – HTML, CSS, JavaScript framework
- ❑ PyCharm IDE – Python program development environment
- ❑ Jupyter Notebooks – web application for interactive data science and scientific computing
- ❑ Anaconda Virtual Environments – python virtual environment application

CC

5. AVAILABLE SOLUTIONS

To automate such a system, the easiest method would be to build a Convolution Neural Network model capable of accepting images from the user and determining the location and severity of the damage. The model is required to pass through multiple checks that would first ensure that given image is that of a car and then to ensure that it is in fact damaged. These are the gate checks before the analysis begins. Once all the gate checks have been validated, the damage check will commence. The model will predict the location of the damage as in front, side or rear, and the severity of such a damage as in minor, moderate or severe.

The model accepts an input image from the user and processes it across 4 stages:

- ◆ Validates that the car is damaged.
- ◆ Finds location of damage as front, rear or side
- ◆ Determines severity of damage as minor, moderate or severe

The model can also further be improved to:

- ◆ Obtain a cost estimate
- ◆ Send assessment to insurance carrier
- ◆ Print documentation

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS

To run such heavy datasets to ensure maximum accuracy would be imposed by hardware restriction. Storing, training and deploying such heavy datasets over the cloud would require expensive architecture. While the computer can avoid human errors, there are often situation that would require such a model to flag for human assistance

J&P

9. PROBLEM ROOT CAUSE

The field of Computer Vision is yet developing and not mature enough to deal with modular phone camera quality images. Angle, lighting, resolution are factors that can easily cause major disruptions in image classification. Car insurance settlement claims require near perfect accuracy to ensure the customer is not frauded in the process. Such models would be required to be trained on humongous datasets which are highly difficult to procure. To run such heavy datasets to ensure maximum accuracy would be imposed by hardware restriction. Storing, training and deploying such heavy datasets over the cloud would require expensive architecture. While the computer can avoid human errors, there are often situation that would require such a model to flag for human assistance. Systems running on the Cloud, especially those dealing monetary data are also heavily susceptible to cyber risks and require heavily structured frameworks to ensure customer data security. Such a process will require a certain level of manual control and filter to avoid flooding of fraudulent insurance claims.

RC

7. BEHAVIOUR

The rapidly expanding automobile industry highly backs the equally fast-growing auto insurance market. Although until now this industry has been solely based on traditional ways to make repair claims. In case of an unfortunate accident, the claims for the car damage needs to be filed manually. An inspector is required to physically analyze the vehicles to assess the damage and obtain a cost estimate. In such situation, there is also the possibility of inaccurate settlements due to human errors. Automating such a process with the help of machine learning and remote usage would make the process a lot more convenient for both sides of the damage, increasing productivity of the insurance carrier and satisfaction of the customer

BE

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS

1. Systems running on the Cloud, especially those dealing monetary data are also heavily susceptible to cyber risks and require heavily structured frameworks to ensure customer data security.
2. Such a process will require a certain level of manual control and filter to avoid flooding of fraudulent insurance claims.

TR

10. YOUR SOLUTION

- ❖ The data set used in this application consisted of around 1500 images for the first gate check, while the classification models were trained on only 400 images per class, while the validation dataset had approximately 75 to 100 images each class. Such a model will have low accuracy.
- ❖ With a wider range of data set featuring multiple components of the car, the model can also be trained to identify what components

SL

8. CHANNELS of BEHAVIOUR

8.1 ONLINE

In ecommerce, one size fits none. Customers expect a personalized approach that makes them feel special. Businesses today have to interact with their consumers to get to know them better and form meaningful, ongoing relationships

8.2 OFFLINE

Local media advertising. Advertising on both television and radio is still very effective in creating brand awareness

CH

Identify strong TR & EM

<p>4. EMOTIONS: BEFORE / AFTER EM</p> <ol style="list-style-type: none"> 1. The field of Computer Vision is yet developing and not mature enough to deal with modular phone camera quality images. Angle, lighting, resolution are factors that can easily cause major disruptions in image classification. 2. Car insurance settlement claims require near perfect accuracy to ensure the customer is not frauded in the process. Such models would be required to be trained on humongous datasets which are highly difficult to procure 	<p>are damaged, also classifying the varying degree of damage of each.</p> <ul style="list-style-type: none"> ❖ With a highly expansive dataset containing the make, model, year of the car and the possible cost estimates for the varying degrees of damage, the model can also predict the value for the user, before he submits the more advanced and detailed assessment for evaluation. ❖ Using more secure and durable hardware, the entire system can be built on the Cloud to run remotely and from the user's cellular device itself. ❖ The application can also be updated to recommend the user of policies pertaining to the specific accounts and other insurance benefits 	
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