

6th and final part of our infographic series

How Deep Learning drives businesses forward through automation.

How to speed up claims processing with automated car damage detection

After a car accident, customers expect their car insurance company to process the claim quickly and smoothly. The customer wants to know how much the damage will cost, whether the repair is worth it, and how high the deductible will be. This is where AI can help: It provides an estimate of the damage and the cost by automatically analyzing images of the damaged vehicle.

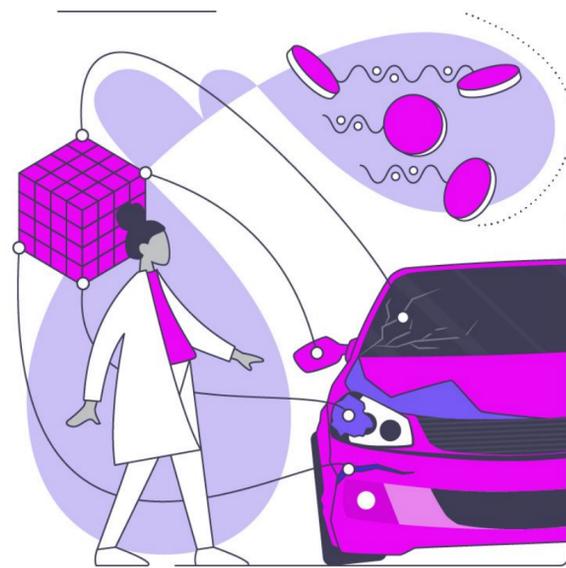
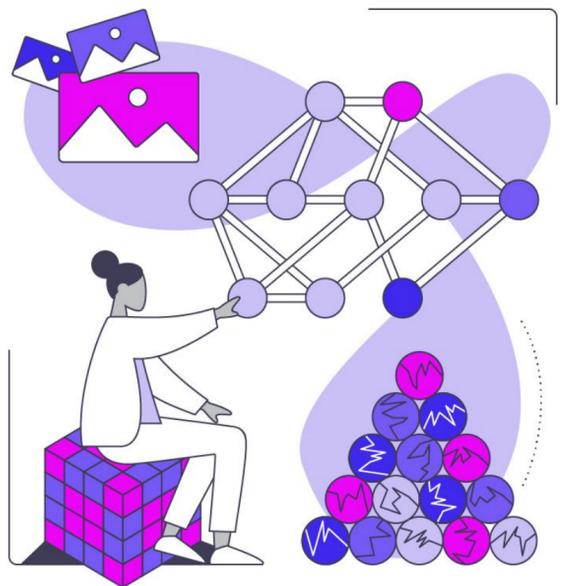


Challenge

To provide customers with an initial assessment of the damage and the costs, they can **upload photos of the damaged car to an app**. The uploaded images have to be analyzed according to certain metrics. This method is suitable for detecting external damage to the car, a large part of the cases reported to insurance companies every day.

Multi-stage analyzing process

The uploaded images are analyzed in a multi-stage process. **AI models have been trained to recognize the different types of damage on different cars and car models**. In the first stage, the AI recognizes the type of vehicle in the images. This requires photos from the long shot. In the second stage, the damaged vehicle parts and the severity of the damage are recognized. For this purpose, the model was trained with detailed images of damage from previous cases.



Estimate of costs

In the third stage, the amount of damage is quantified. To do this, the results of the damage analysis must be compared with data from previous cases to obtain an estimate for all metrics (vehicle type, type of damage, severity of damage). For the comparison, the data from previous repairs must be available in machine-readable form.

Benefits

The customer receives a quick preliminary assessment of his claim. This is followed by a legally binding final assessment by the insurance company. **The advantage for the insurance: the AI can process many hundreds of claims in parallel**. The insurance company only has to approve the damage analysis, but no longer has to prepare a complete damage report itself. This task is largely automated by AI.

