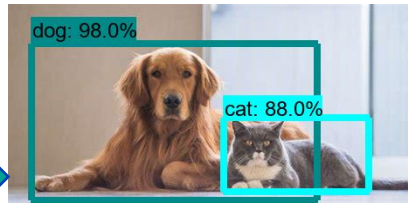


What is object detection with deep learning?

Object detection



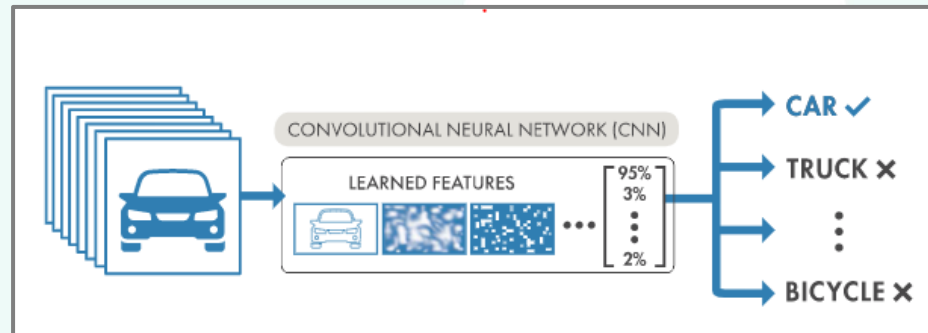
Computer vision technique



Locate instances of objects

Object detection is a computer vision technique, where computer vision system can detect instances of objects from the input of webcam live video or saved videos or images.

Deep learning



Here deep learning algorithm plays the vital role in training the computer or the machine with thousands of images. If we check the concept of deep learning, we will understand that parameters or features are generated by this algorithm itself. As training input only labeled images are required.

In summary when computer is equipped with trained deep learning model, it can identify object from any video or image.

Possible business application of object detection

1. Assessing Shelf Share



2. Detecting Empty Shelf



What are the possible business usages of this idea?

Since this model can identify product from the photo, shelf share can be easily assessed by just capturing photos of the shelf. Using the same concept, empty space of the shelf can also be identified.

3. Auditing Product Placement



4. Assessing Competition



Wrong product placement can also be identified if the model is designed to do so.

Competitor's presence in the shelf can be assessed if the model is trained with competitors' product as well.

This is one type of business use. Specially for the front end.

Benefits of object detection application

Automation of input



Real time analysis



Visibility of front end



Sales growth



If few basic benefits are being called out, automation of input collection would be the first one, field force will capture the image and data will be generated automatically. With the data real time market status assessment will be possible. This will help to replace manual and sample-based agency service in collecting retail data and auditing product placement. Here, lead time of data collection and accuracy of data will be improved. Better visibility of competitors' and company's share will be ensured.

This automated data collection and data analysis will help to understand gap at the store. Using the data salesforce will ensure sales to that store and merchandiser will ensure visibility at the shelf.

As a result, improved product assortment will translate to the sales growth of the company.