

Fundamentals Of Deep Learning

Convolutional Neural Networks

It's time to jump into images!

Before we go into CNN think about why we can't use the normal neural networks we used last class.

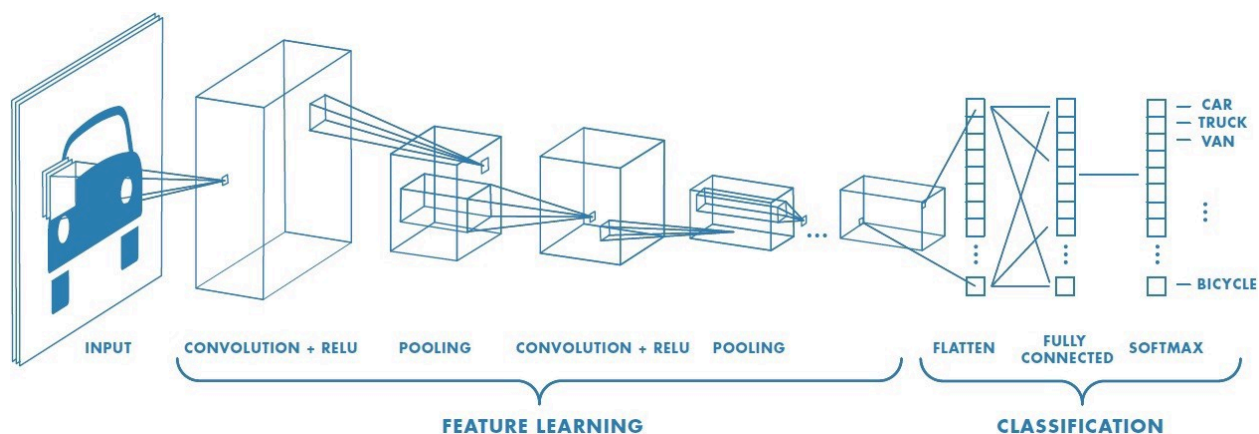
What is an image classification problem?

Image classification refers to a process in computer vision that can classify an image according to its visual content. For example, an image classification algorithm may be designed to tell if an image contains a human figure or not. While detecting an object is trivial for humans, robust image classification is still a challenge in [computer vision applications](#).

CNN's can be used for classification, segmentation, object detection and so much more! (Check out YOLO- its a CNN not You Only Live Once)

CNN:

The layers you usually see in a CNN:



I personally learnt from this video, so make sure you have seen this before the class on Thursday.

<https://www.youtube.com/watch?v=FmpDIaiMleA>

The following tutorial is also very comprehensive and mandatory for you to go through:

<https://towardsdatascience.com/a-comprehensive-guide-to-convolutional-neural-networks-the-eli5-way-3bd2b1164a53>

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