

Introduction to Neural Networks and CNN

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Summary

Neural Networks

Convolutional Neural Networks (CNN)

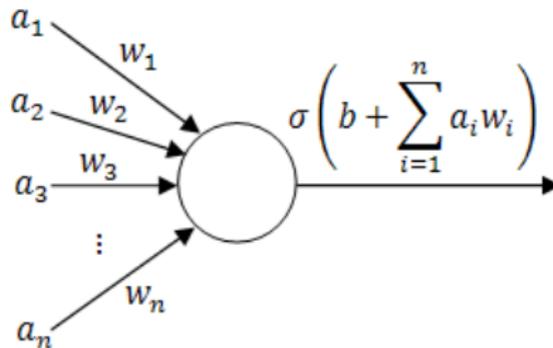
Pooling Layers

Architecture VGG16

If you want to dig deep



Quick Model explanation



Simple Perceptron

Figure: Modèle Perceptron



Quick Model explanation

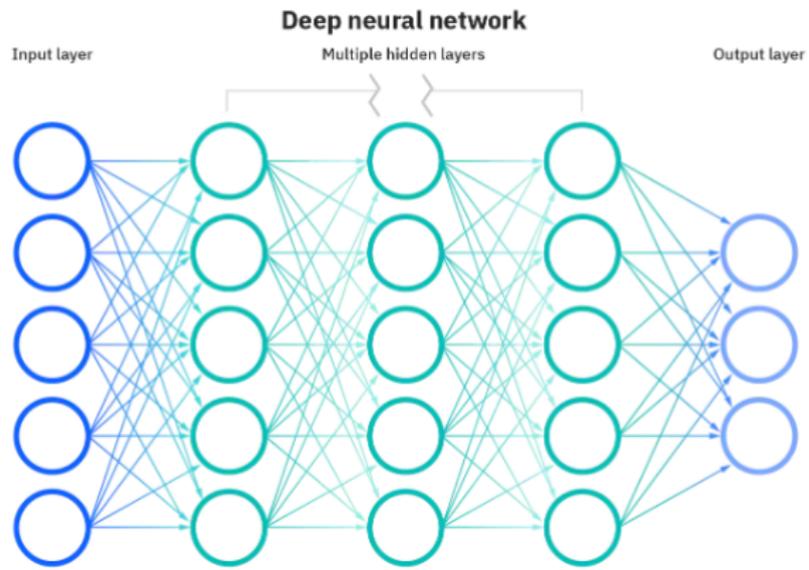


Figure: Modèle plus compliqué



Explanation

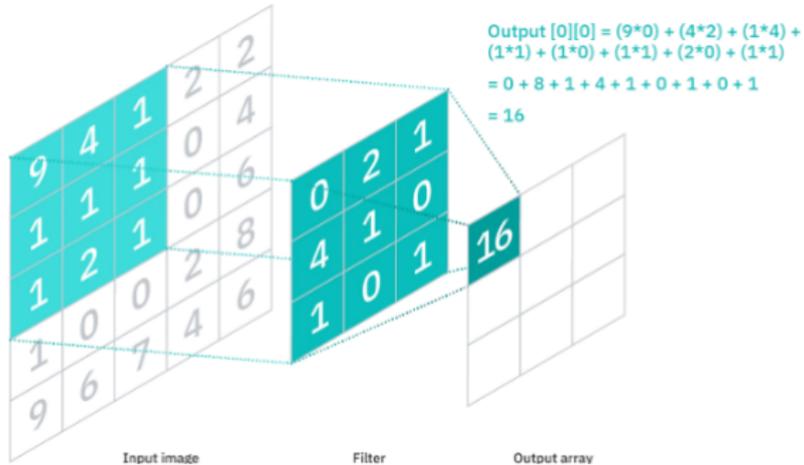


Figure: Work on image



Explanation

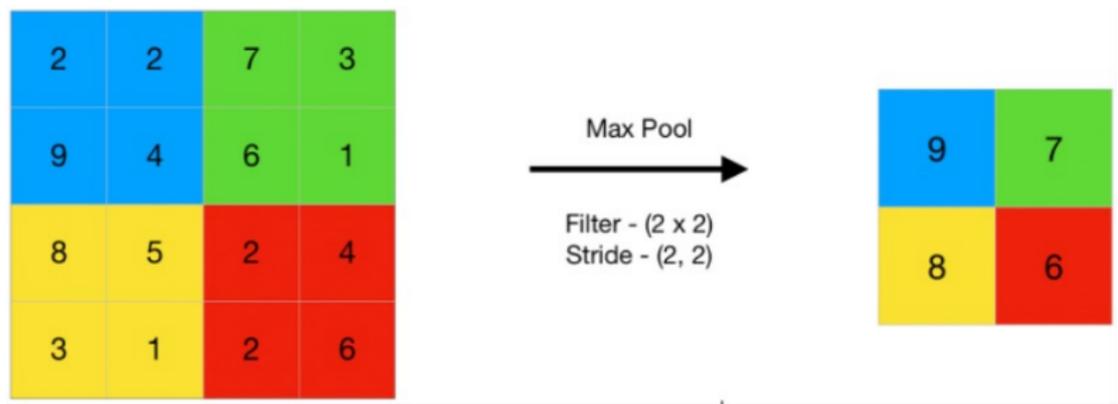


Figure: Work on image



Architecture VGG16

Definition and history

-VGG16 is a convolutional neural network model proposed by K. Simonyan and A. Zisserman from the University of Oxford in the paper “Very Deep Convolutional Networks for Large-Scale Image Recognition”. The model achieves 92.7% top-5 test accuracy in ImageNet, which is a dataset of over 14 million images belonging to 1000 classes.



The Architecture

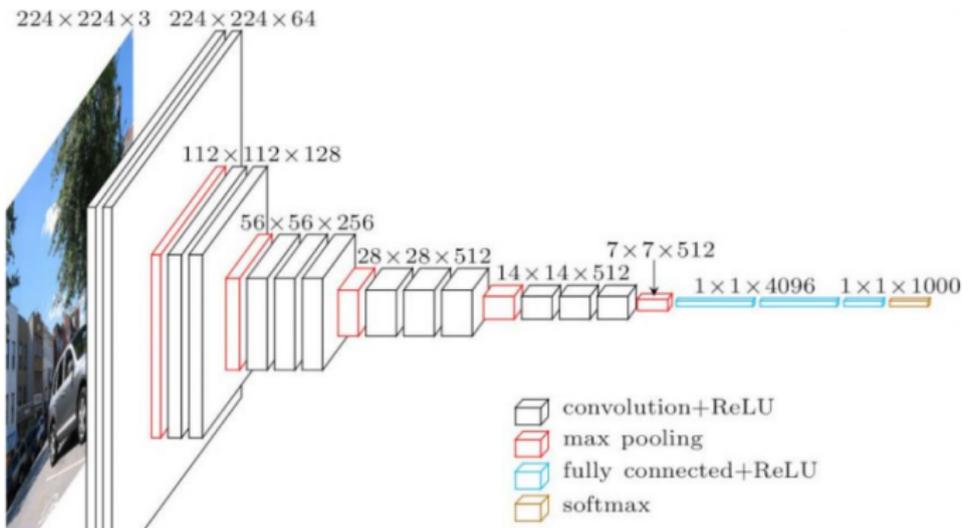


Figure: The Architecture



YOLO

Definition

-YOLO is an algorithm that uses neural networks to provide real-time object detection. This algorithm is popular because of its speed and accuracy. It has been used in various applications to detect traffic signals, people, parking meters, and animals.

