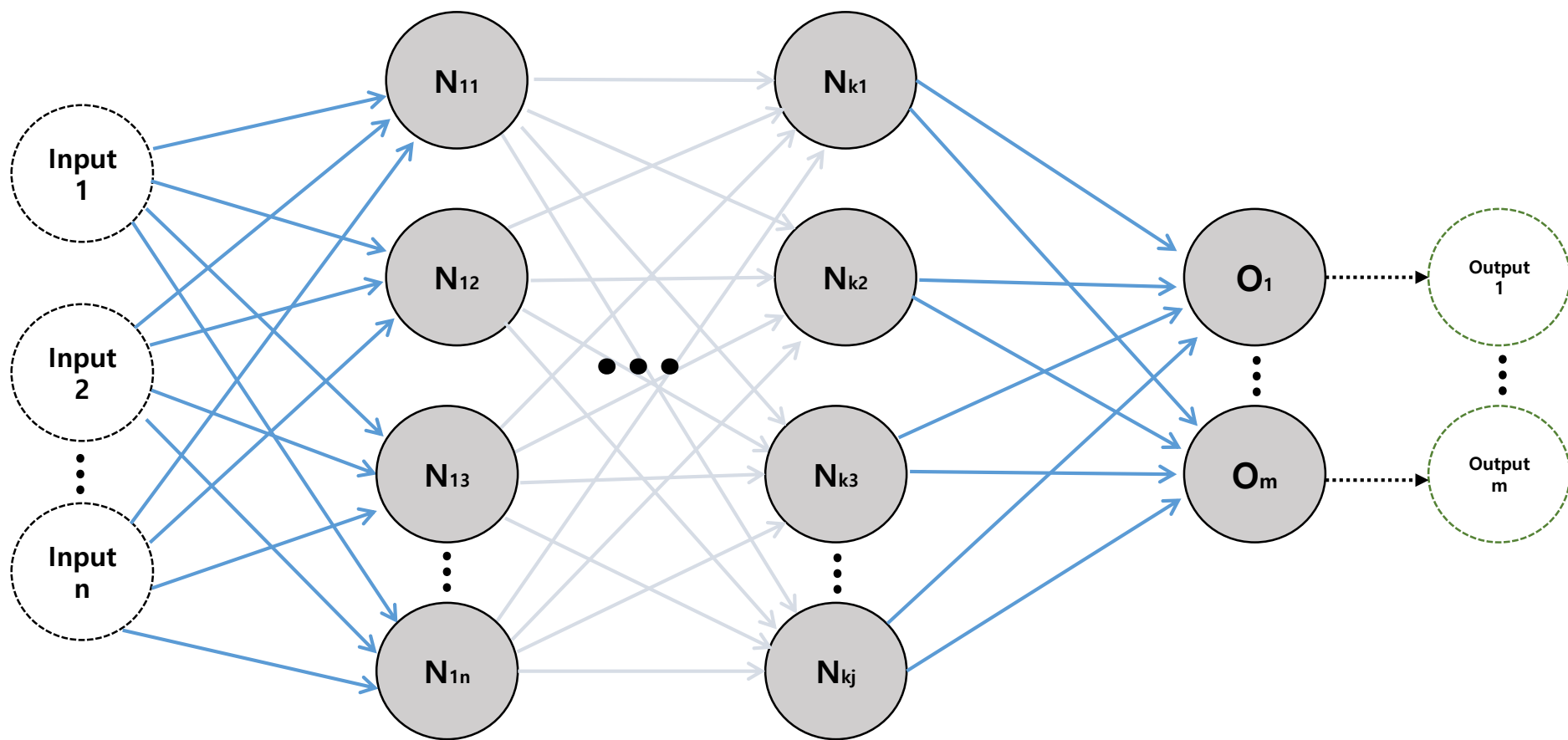


Input

Hidden layer

Output layer

Output



**n-Input**

**k-Hidden layers → deep layer**

**m-Output layer**



# A mostly complete chart of Neural Networks

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-  Backfed Input Cell
-  Input Cell
-  Noisy Input Cell
-  Hidden Cell
-  Probabilistic Hidden Cell
-  Spiking Hidden Cell
-  Output Cell
-  Match Input Output Cell
-  Recurrent Cell
-  Memory Cell
-  Different Memory Cell
-  Kernel
-  Convolution or Pool

Perceptron (P)



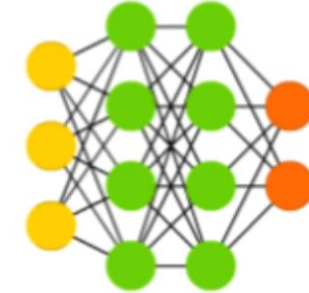
Feed Forward (FF)



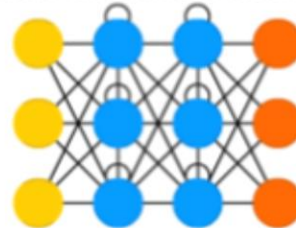
Radial Basis Network (RBF)



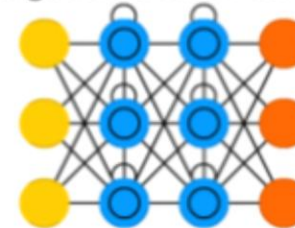
Deep Feed Forward (DFF)



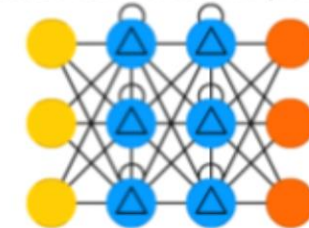
Recurrent Neural Network (RNN)



Long / Short Term Memory (LSTM)



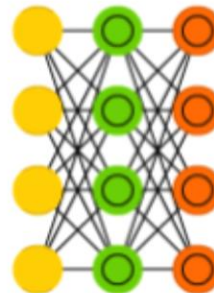
Gated Recurrent Unit (GRU)



Auto Encoder (AE)



Variational AE (VAE)



Denoising AE (DAE)



Sparse AE (SAE)

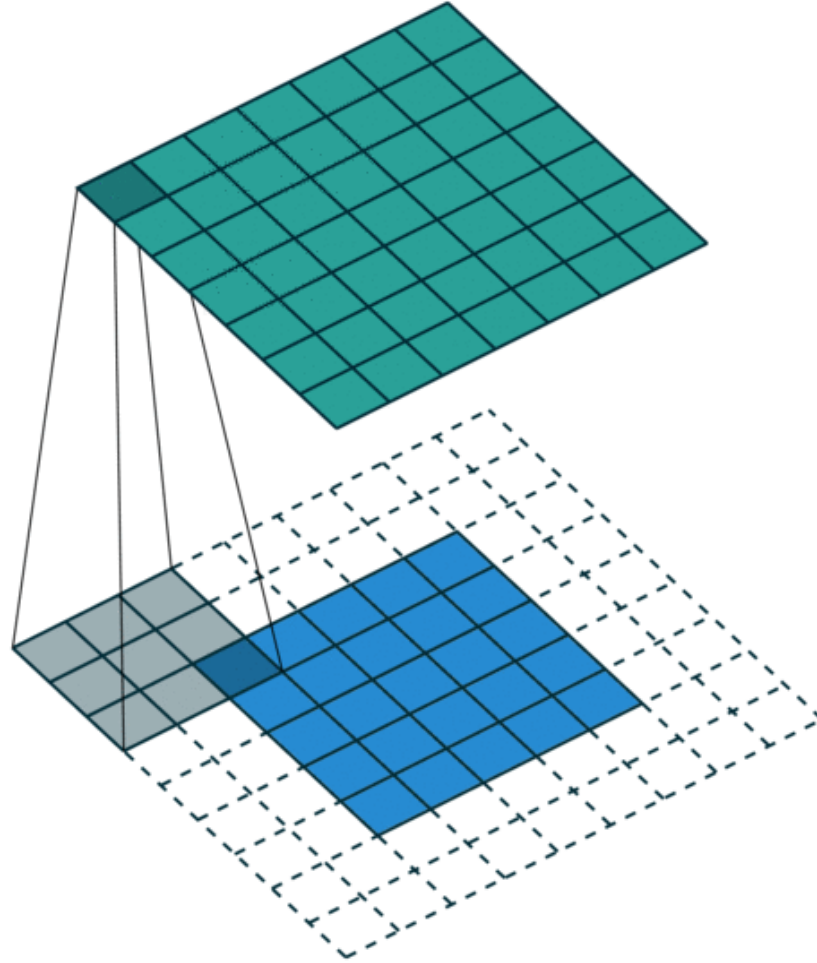


# Deep Learning of Images

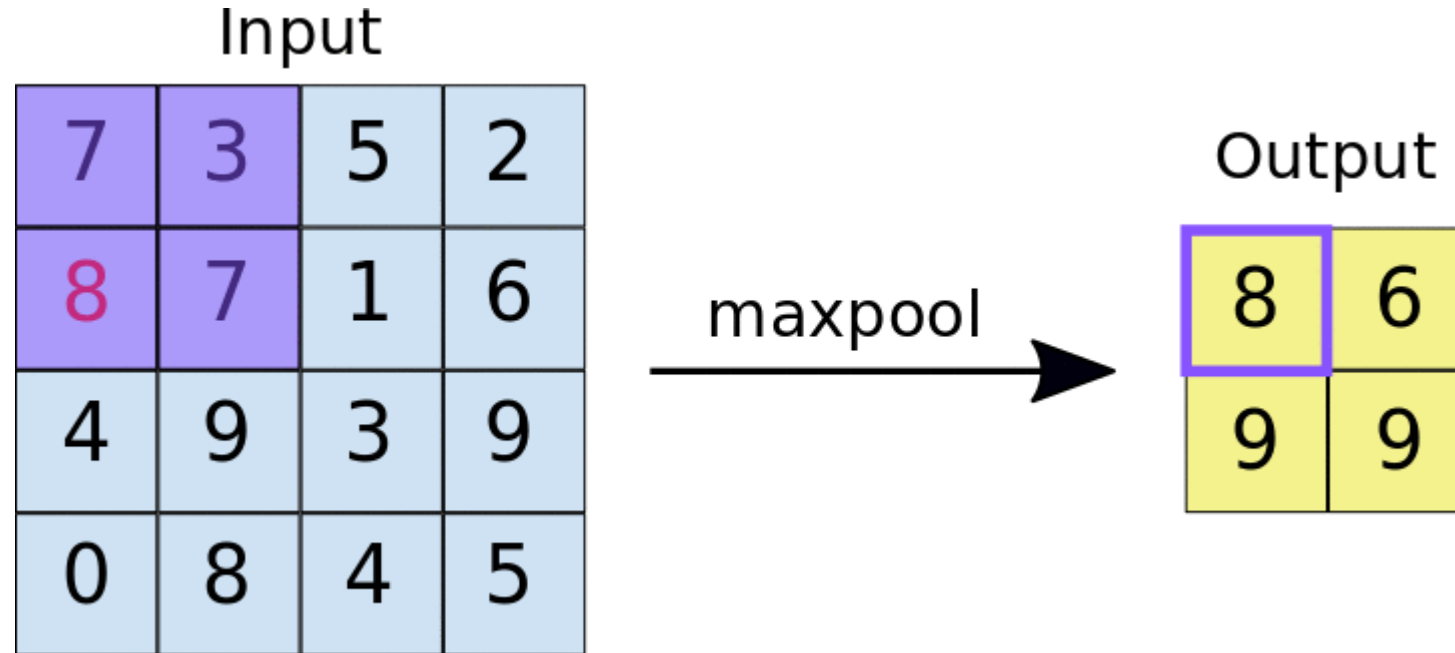
→ Conv2D



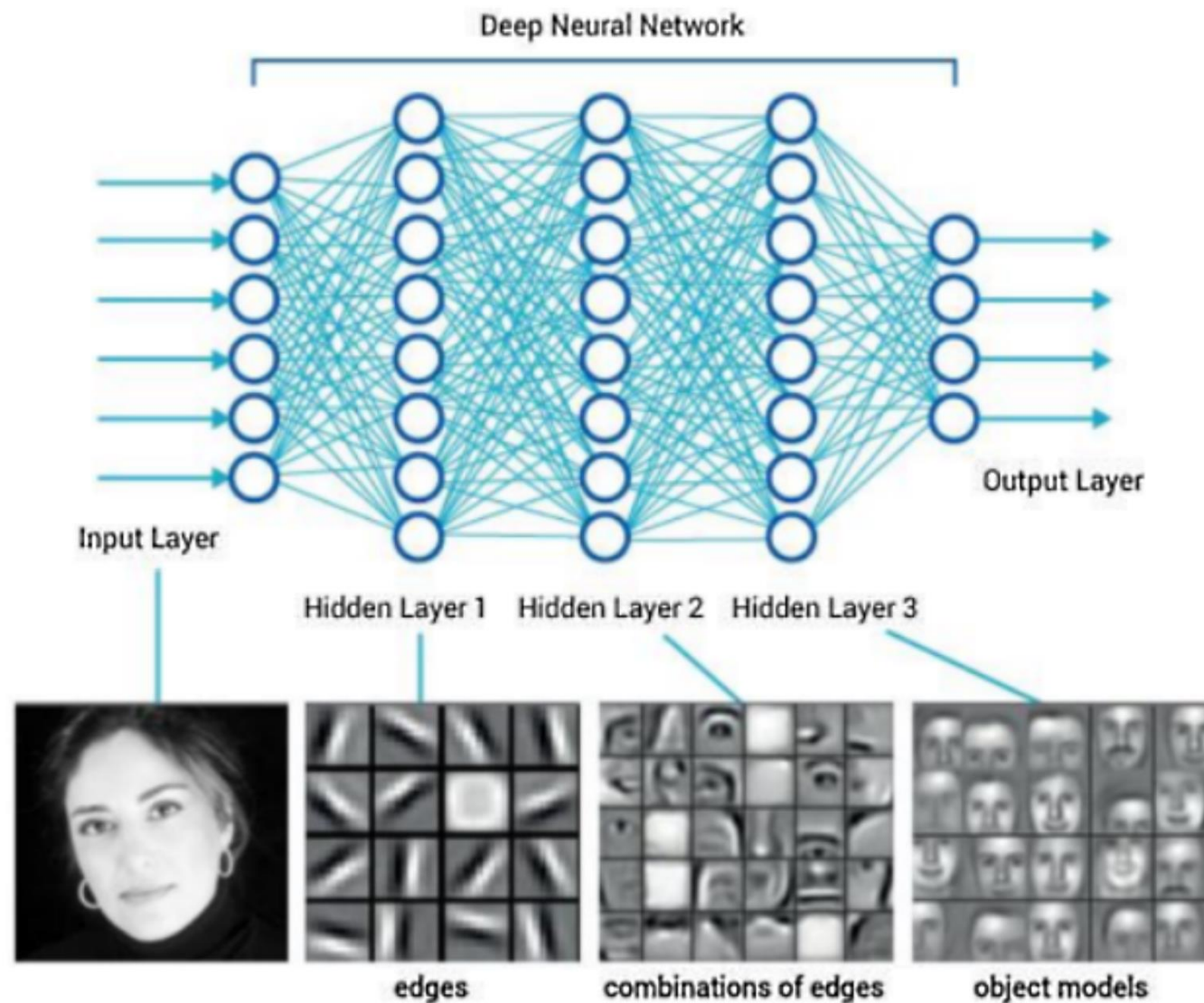
# Conv2D



# Max-Pooling

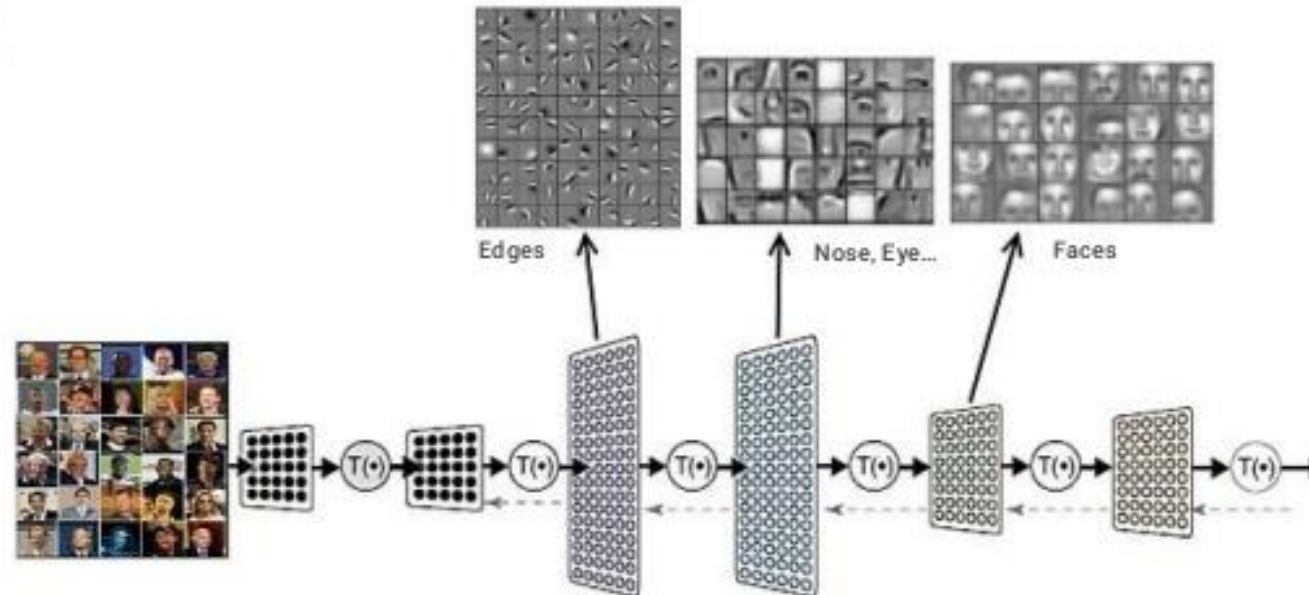


# How does DL work on images?



# Deep Learning - Basics

What did it learn?



# Going deeper in the network

