

딥러닝의 기본 개념

AI



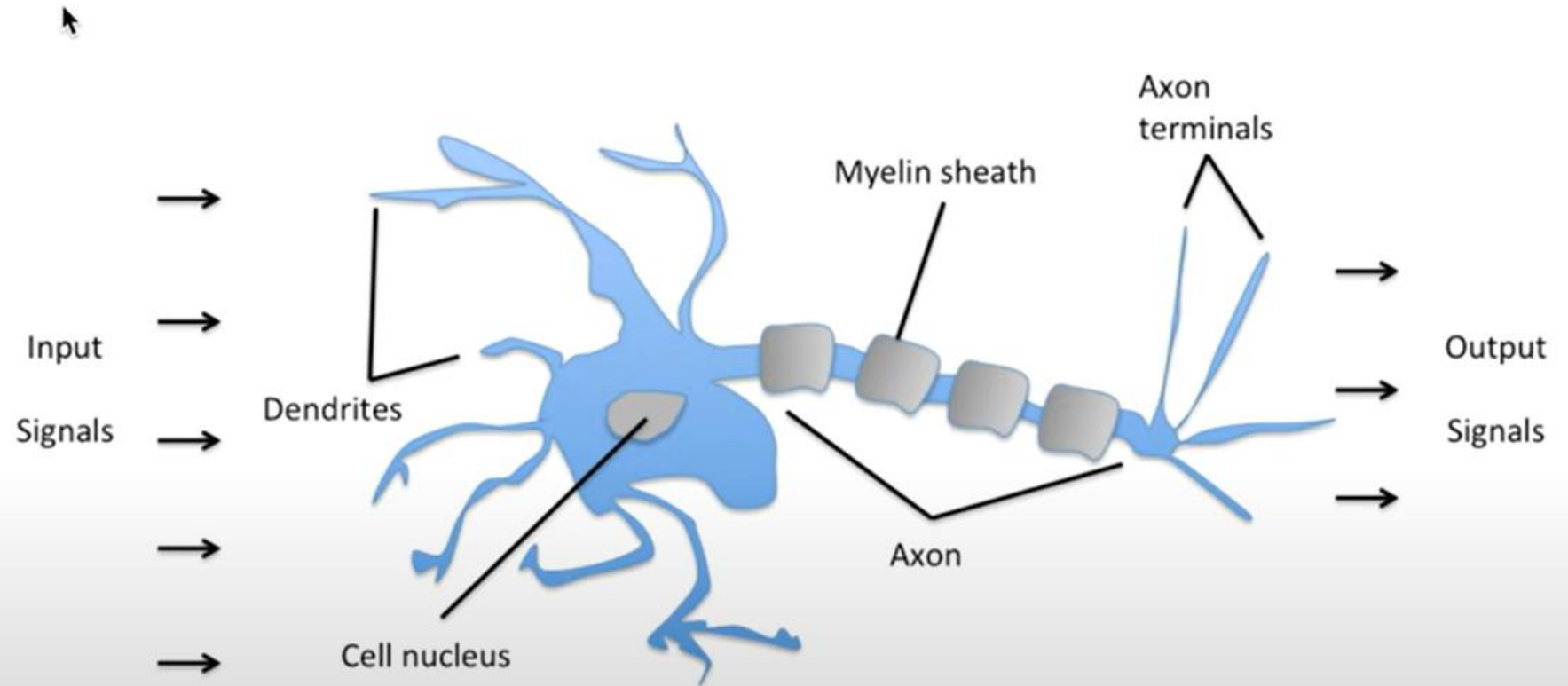
ML



DL

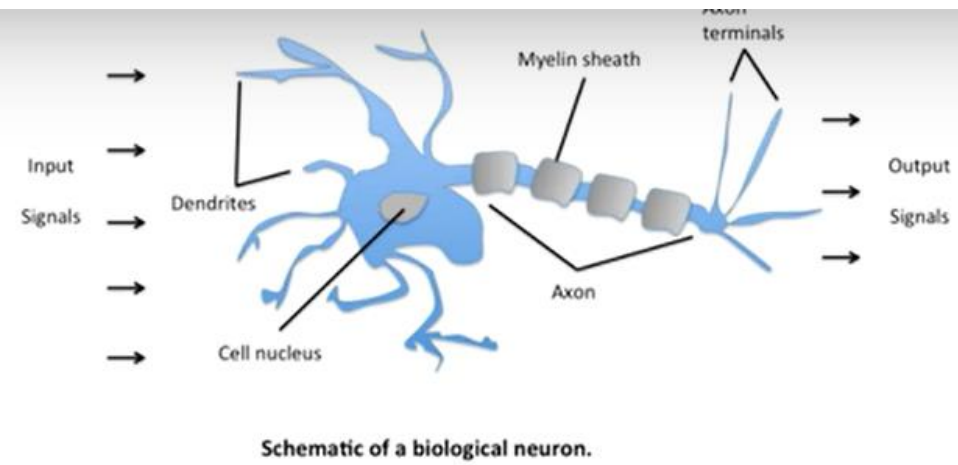
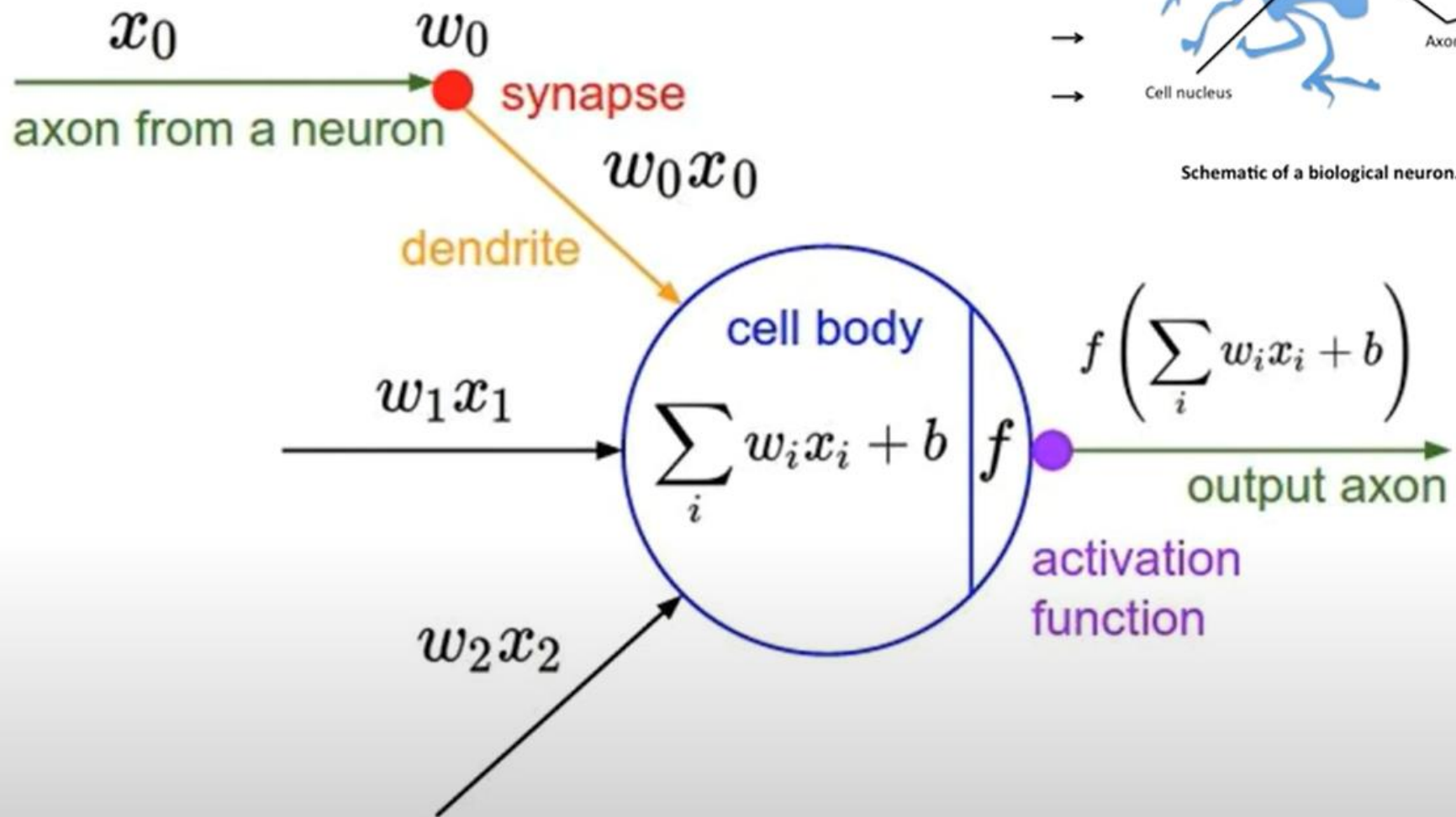


Ultimate dream: thinking machine

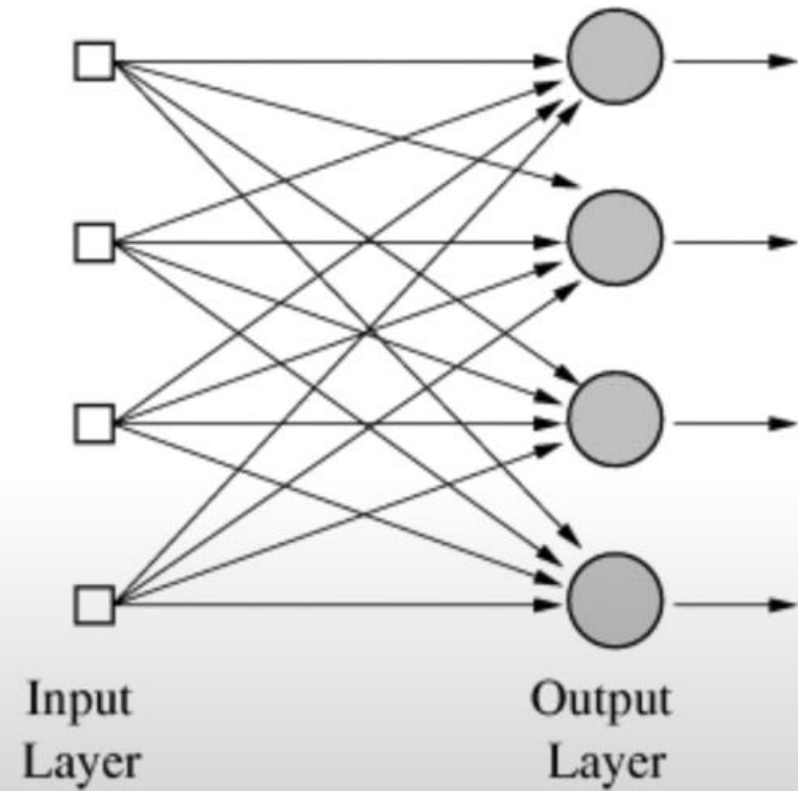
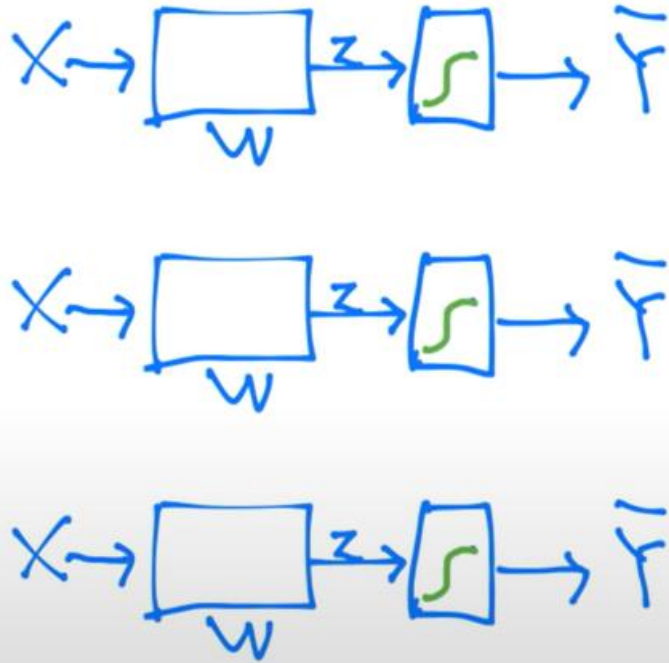


Schematic of a biological neuron.

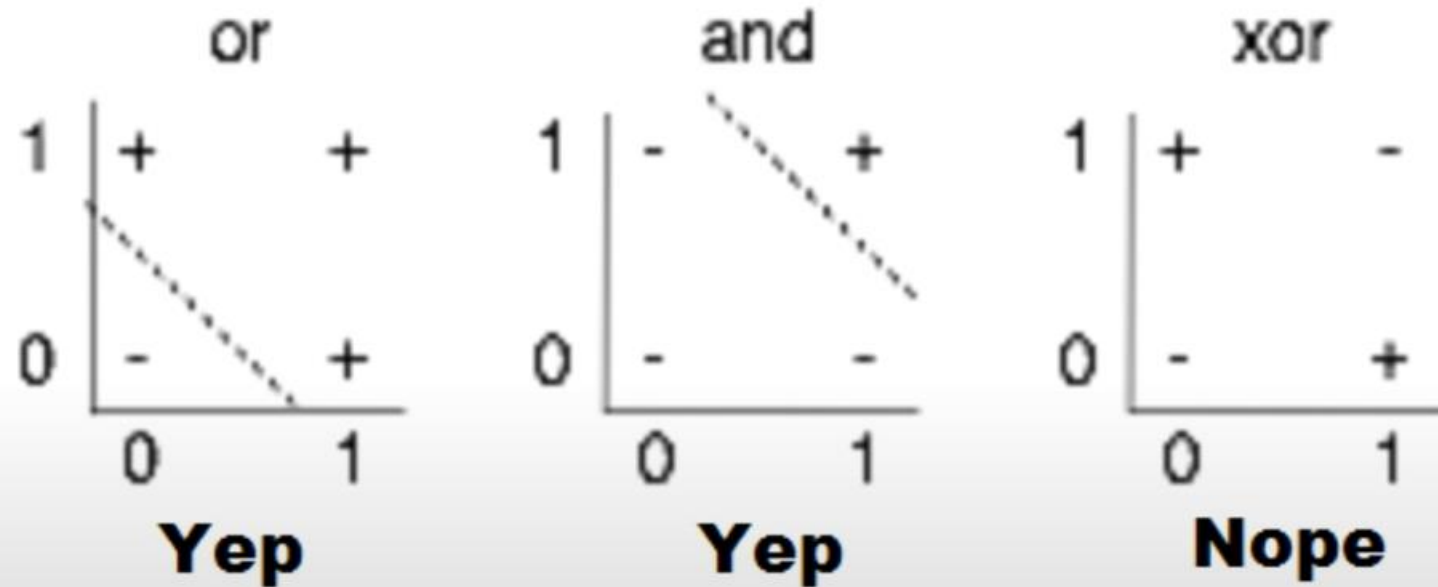
Activation Functions

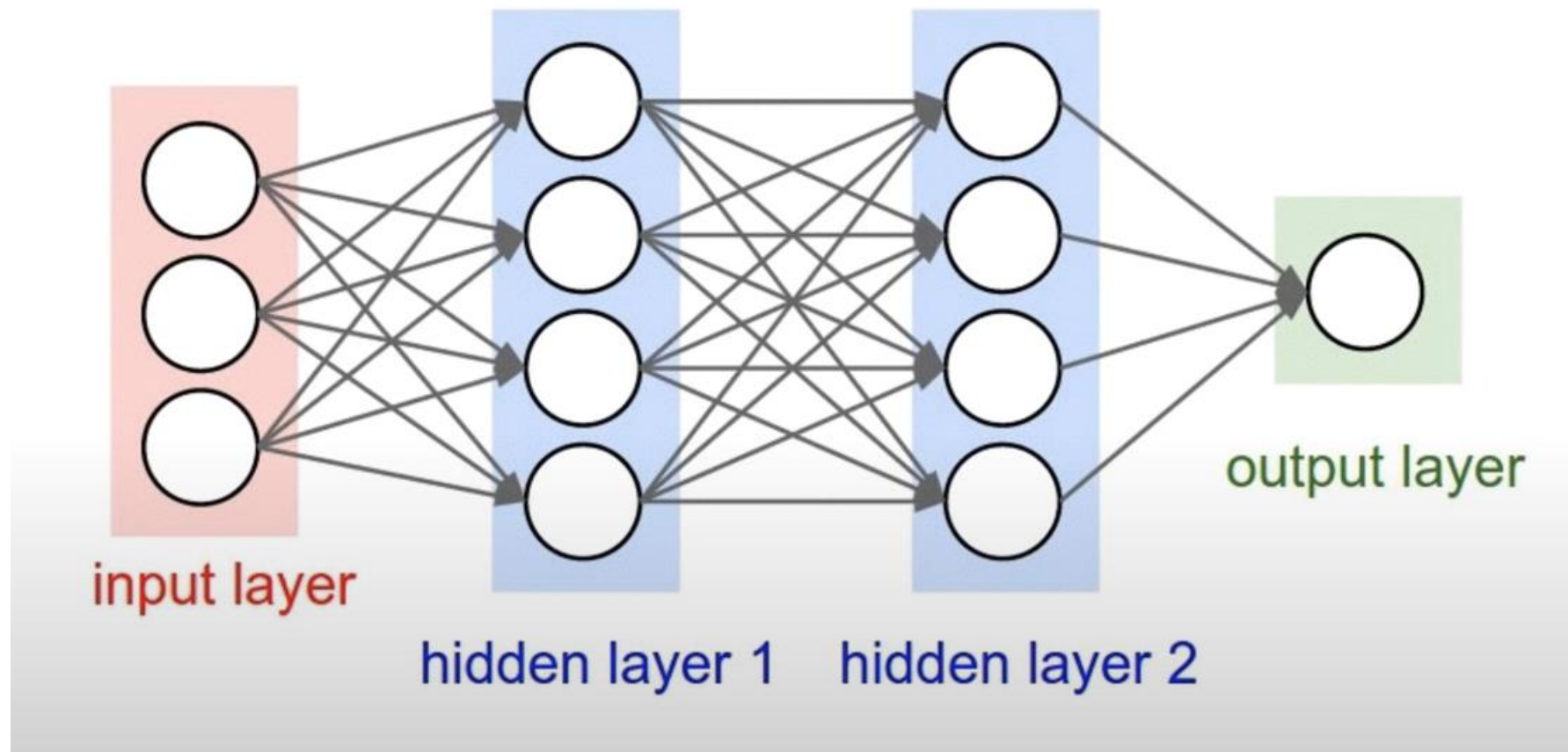


Logistic regression units



(Simple) XOR problem: linearly separable?

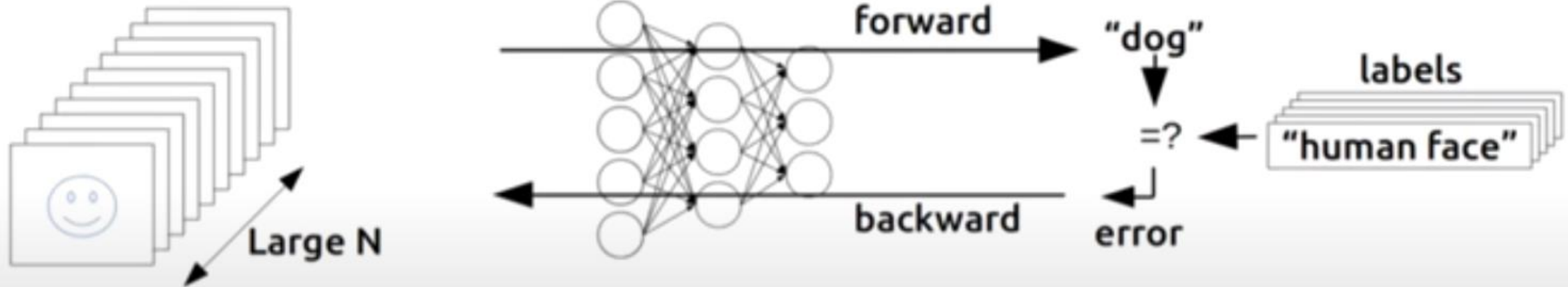




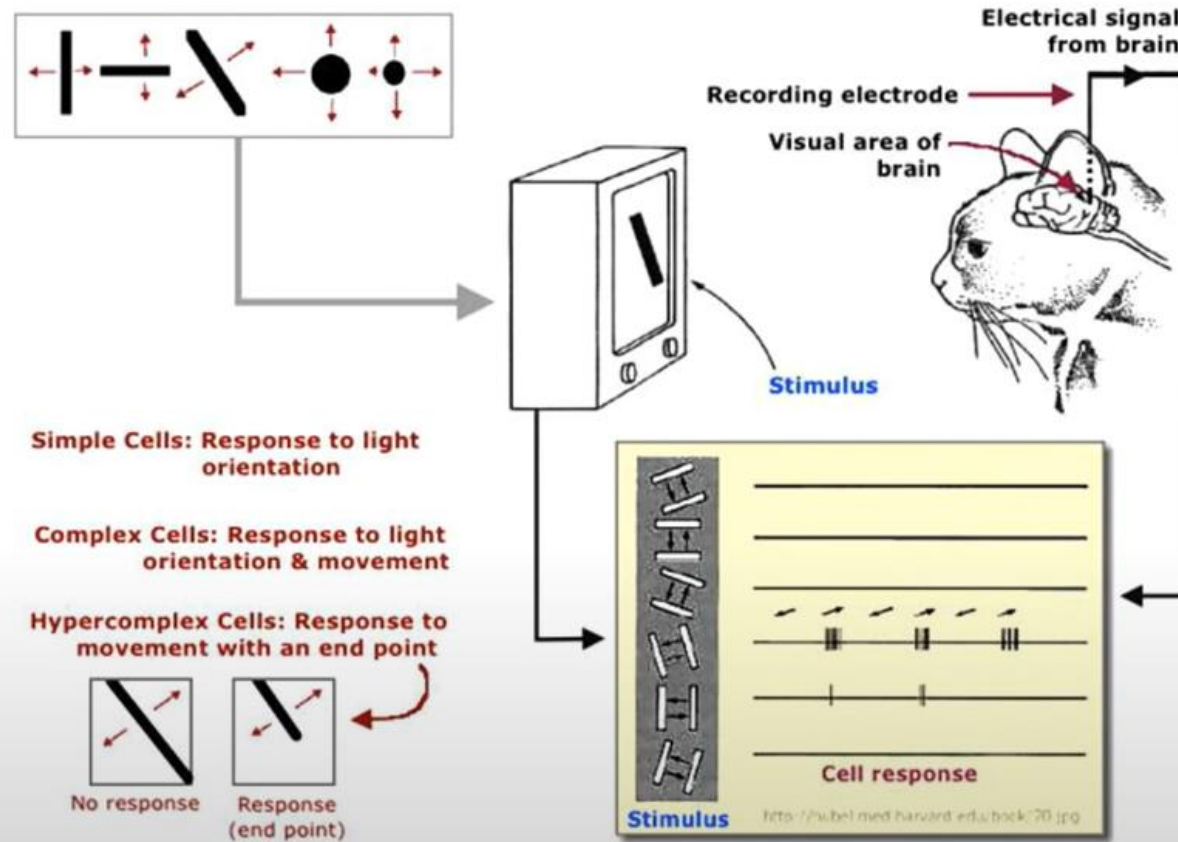
Backpropagation

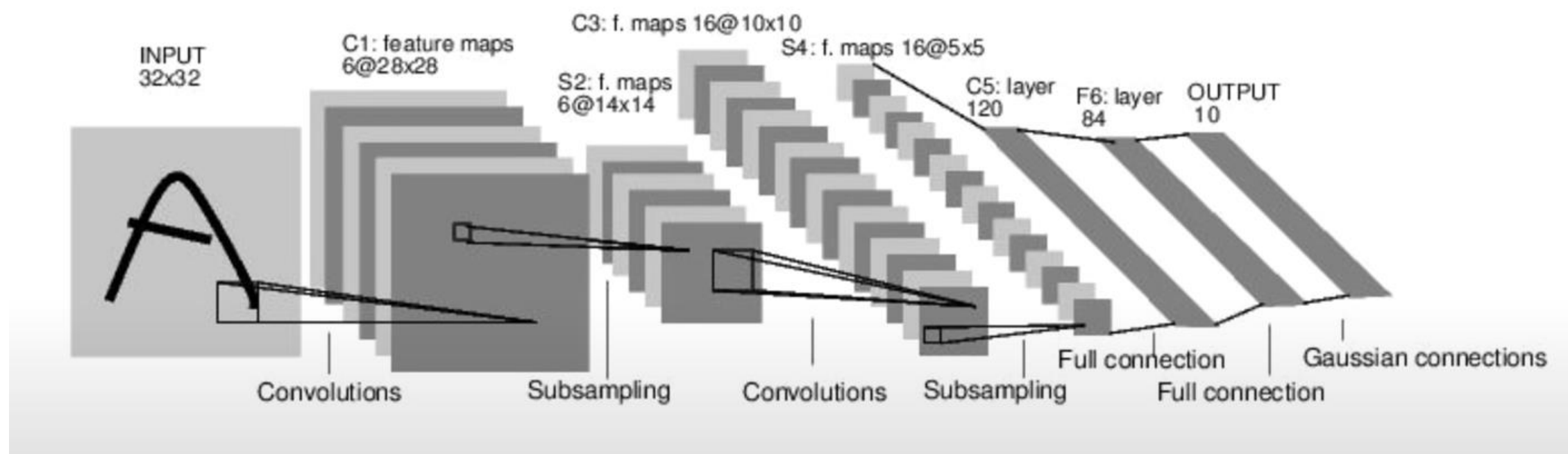
(1974, 1982 by Paul Werbos, 1986 by Hinton)

Training



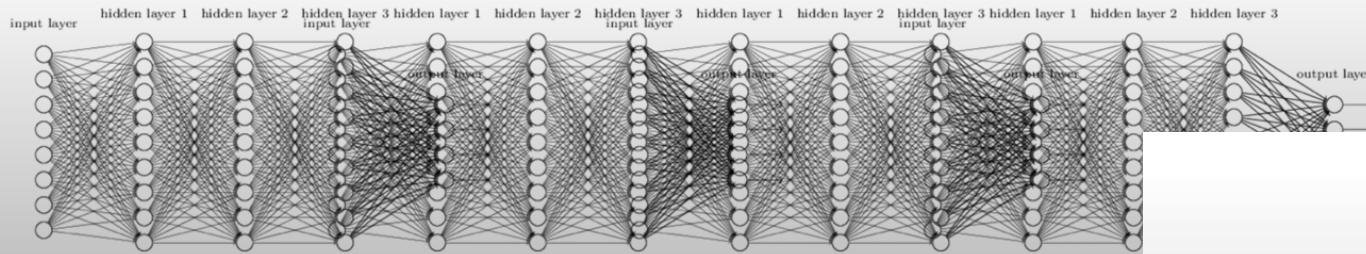
Convolutional Neural Networks





A BIG problem

- Backpropagation just did not work well for normal neural nets with many layers
- Other rising machine learning algorithms: SVM, RandomForest, etc.
- **1995** “Comparison of Learning Algorithms For Handwritten Digit Recognition” by LeCun et al. found that this new approach worked better



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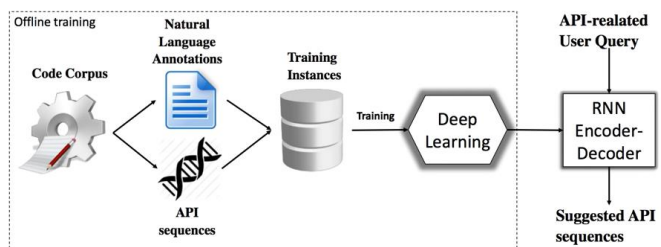
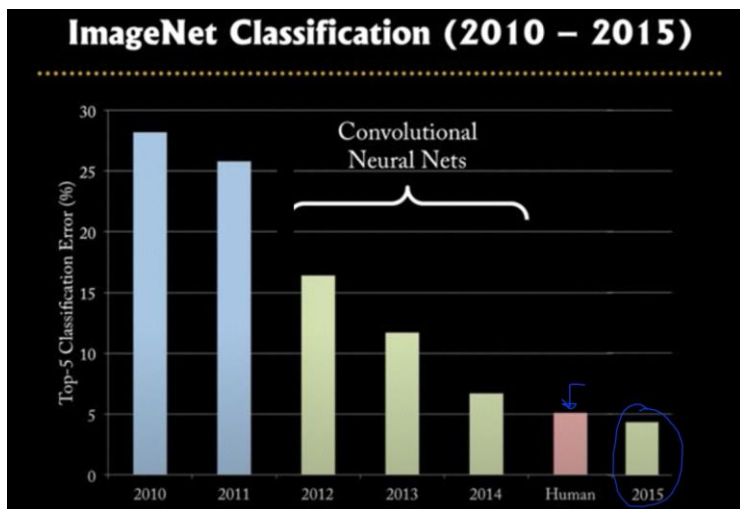


Figure 3: The Overall Workflow of DEEPAPI

