

Neural Networks Notes

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Part I

Different Types of Neurons and Learning

Keywords 1. Fruit flies, MNIST, TIMIT, linear, binary threshold, rectified / linear threshold, logistic, stochastic binary neurons, supervised, unsupervised, reinforcement learning.

Question 1. *How many other neurons does a neuron talk to? Do they change neighbours?*

Note 2. “Goal of unsupervised learning: provides a compact, low-dimensional representation of the input,” like Pied Piper’s compression algorithm using neural networks!

Part II

Neural Network Architectures

Keywords 2. Feed forward, recurrent, symmetrically connected neural network, perceptrons, convexity condition.

Reference 1. <http://www.cs.toronto.edu/~rgrosse/csc321/homework.html>.