

Neural Networks

Deep Learning

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Contents

1 But what is a neural network?	3
1.1 Structural overview	3

Notes for the introduction to neural networks presented by **3blue1brown**. Watch the whole series, click [here](#). This series describes the strategy to recognize handwritten numbers. To navigate to reference / heading just click on the name.

List of Figures

1	Image interpreted as first layer of neural network	3
2	Resulting top layer	3

1 But what is a neural network?

1.1 Structural overview

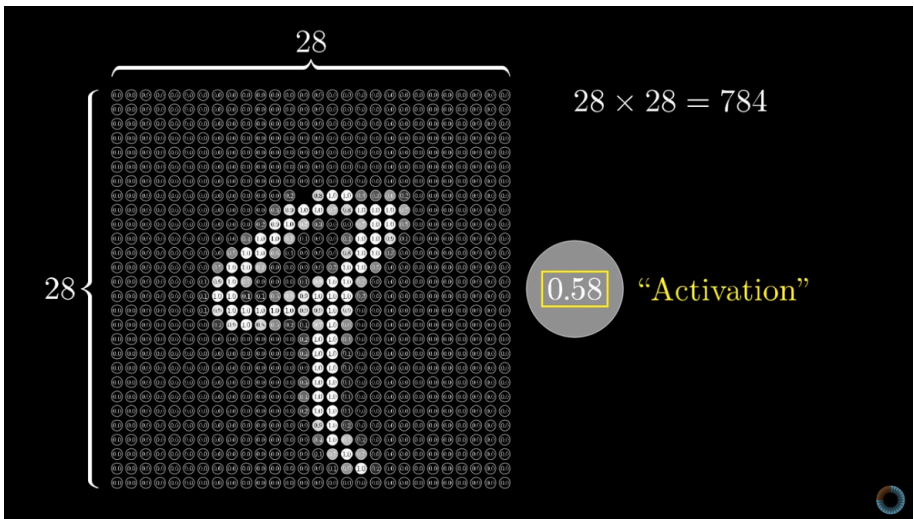


Figure 1: Image interpreted as first layer of neural network

Each pixel from the image is represented by a so called *neuron* 1.1. These neurons possess a value called **Activation** which contains a float between 0 and 1. This value specifies the brightness of this the particular pixel. This activation value also can be interpreted as how *lit up* this particular neuron actually is, 1 meaning 100 % in this context.

Testref 1.1

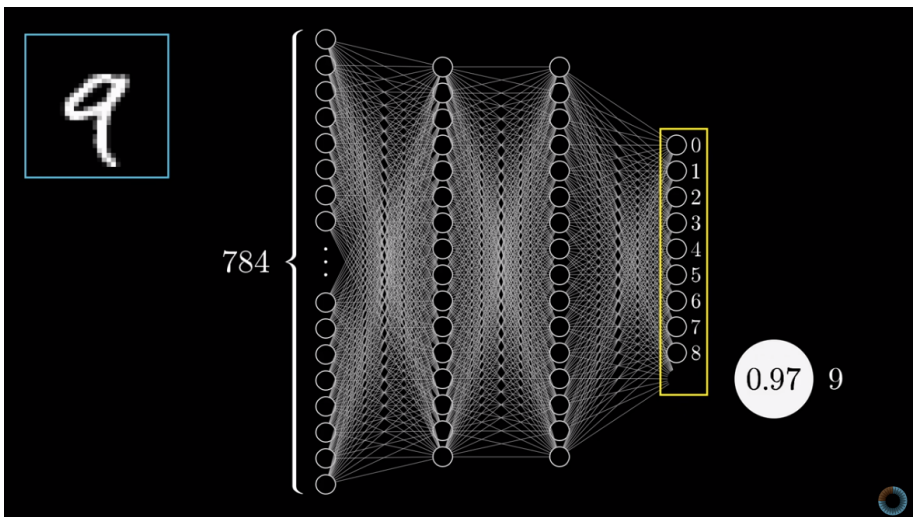


Figure 2: Resulting top layer