

Neural Networks and Deep Learning: Exercises

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Contents

1	Using Neural Networks to Recongnize Handwritten Digits	2
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Chapter 1

Using Neural Networks to Recognize Handwritten Digits

Exercise 1. Consider a network of perceptrons. Suppose that we multiply all weights and biases by a positive constant $c > 0$. Show that the behaviour of the network does not change.

Solution. First consider a single perceptron. ■