Exercise: Classification of Handwritten Digits Using an MLP

Lesson Downloads

Instructions

In this exercise, you will train a multi-layer perceptron (MLP) to classify handwritten digits from the MNIST dataset. The MNIST dataset consists of 28x28 grayscale images of handwritten digits (0 to 9). The task is to classify each image into one of the 10 classes (one for each digit).

First, run through the notebook in the Workspace on your own. Then, you'll be ready to watch my walkthrough video and answer the quiz questions.

Resources

scikit-learn Documentation

Downloading datasets from the openml.org repository

sklearn.neural_network.MLPClassifier

Neural network models user guide

Matplotlib Documentation

matplotlib.pyplot.imshow

NumPy Documentation

numpy.array

NumPy broadcasting (used for scaling images)