

AI/ML for Industry

Assignment 3

Question 1: Consider the classification problem of handwritten images in the MNIST dataset. Similar to the previous assignment, consider the 2000 samples of the test data for this analysis. Split the dataset into two parts with an 80:20 ratio and compare the performance of ALL classification methods described in the class. The features will be the vector representation of the images, similar to the previous assignment. Based on your theoretical understanding and empirical results obtained, briefly write the pros and cons of each method.

Question 2: Also perform an analysis of PCA on each method. How do the components impact classification performance?