

Assignment 2

Mustererkennung/Machine Learning WiSe 20/21

Exercise 1. Implementation of a DBSCAN-Classifer

Implement a DBSCAN-Clustering in Python (incl. Numpy, Matplotlib) on the Jupyter Notebook Environment. Apply the algorithm on the “Two-Spirals”-dataset given in the notebook.



Evaluate the model on points given by that distribution.

- (a) Use Mathplotlib to create a scatter plot highlighting the clusters that were found after finding good hyperparameter values ϵ and minPts .
- (b) Print accuracies for different data_size values.
- (c) For what kind of data_size values does the algorithm fail and why? What would you say are disadvantages of DBSCAN?

*Submit as a fully executed Jupyter Notebook as PDF and as .ipynb in KVV. **Deadline:** 23.11.20, 10.00h.*