KU LEUVEN

Assignment 3

Unsupervised Learning and Data Visualization

Data Mining & Neural Networks

Teaching Assistants

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What to expect for Assignment 3?

- **3.1 Self-organizing Map:**

  - Implement SOM on both cylinders and banana data sets;

  - Unsupervised learning;

  - No coding for question “how can you perform clustering according to SOM Neighbour Distance”;

- **3.2 Principal Component Analysis:**

  - Implememt PCA with the help of linearpca.m;

What to expect for Assignment 2?

- **3.3 AutoEncoder:**

- Tune the size of the code layer;

- Use MSE as your reconstruction error;

- **3.4 Stacked AutoEncoder:**

- Run Stacked AutoEncoder;

- Tune hyperparameters in DigitClassification.m, and compare with normal multilayer neural networks;

You will now be splitted into **small groups.**

We will **hop from group to group** to answer your questions.

Don’t hesitate to send us a message via **chat**.