

THIRD ASSIGNMENT

A program which performs classification task with Multilayer Perceptron (MLP) network. The program is trained with BACKPROPAGATION method or one of its extensions / modifications.

The training and testing data come from UCI ML Repository (you must choose 2 datasets, perform training, testing and discuss the results in your reports).

The program should allow

- 1) Reading training data
- 2) Training the network with visualization of the error/loss function
- 3) Reading the test data
- 4) Testing the network with error visualization / discussion of results (accuracy, generalization, over-fitting, etc.)
- 5) During training you should use VALIDATION set (a separate part of the TRAINING data) for early stopping condition – the optimal moment of finishing the training process.

Max 30 points → possibility of reading the input data (training / testing) from external file – 5 pts; GUI and visualization of the training progress – 10 pts. Presentation of training results on test data with comments / discussion – 10 pts. Report from your tests – 5 pts.

Start – 19.05. End (submission deadline) 16.06 – 2 P.M.

You are expected to select two files from the UCI ML Repository and send their description to me by 03.06.

STARTING EACH NEW WEEK OF DELAY → minus 5 PTS. (max 2 weeks delay)