

KARLSRUHER INSTITUT FÜR TECHNOLOGIE

DESIGN DOCUMENT

Numerical Linear Algebra meets Machine Learning

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1 Class descriptions

1.1 Collector

1.2 Labeling Module

1.3 Training Moulde

1.3.1 Class Configuration File

The configuration file is a text file. It is used to specify all necessary information the class neural network needs to train the neural network. If the user does not change anything in the configuration file, default options will be used. The configuration file is organized in four main categories.

1. loading path of the set of matrices
2. saving path for the neural network
3. loading path for the neural network
4. model definition and hyperparameters

1.3.2 Class Neural Network

1.4 Classifier

1.5 Command line interface

1.6 Classes needed in more than one module

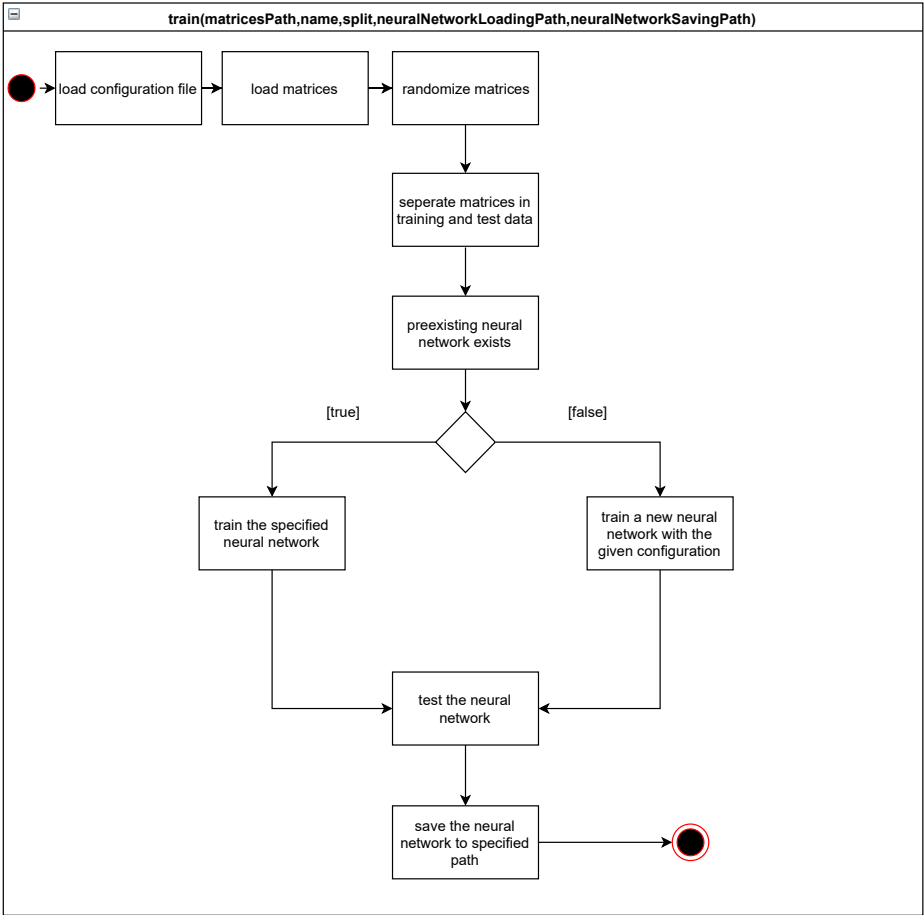
1.6.1 Class Matrix

2 Activity diagrams

2.1 Collector

2.2 Labeling Module

2.3 Training Moulde



2.4 Classifier

3 Class diagrams

4 Sequence diagrams

5 Glossary