

Home assignment 2

Submission opens 07.03.2023, submission deadline 02.04.2023 23:59

Precise requirements will be communicated via TalTech Moodle.

Exercise 1. Supervised learning: Gradient descent

Program in Python implementation of Gradient descent algorithm.

Exercise 2. Supervised learning: Newton method

Program in Python implementation of Newton method.

Exercise 3. Bayes classifier

Program in MATLAB Bayes classifier algorithm.

Exercise 4. Kernel trick

Program a Kernel which would allow to separate the data set composed of two boomerangs (frequently referred as two-moons). Note that initial data belong to the two dimensional space, whereas one boomerang/half-moon is one class and the other one represent the other class. It is expected that proposed solution will project the data into 3D space.

Exercise 5. Boosting

Program in MATLAB your own implementation of the AdaBoost algorithm.