Machine learning ITI8565

Final Project

Deadline: to be uploaded 24h before the examination but no later than 10.06.2019

General requirements:

- No plagiarism in any form. Please cite all the sources you used.
- Prepare your solution in such a way, that after extracting files from the archive into a single folder it may be executed on any computer with MATLAB or Python 3.6. or newer.
- It is your responsibility to provide all the necessary data files.
- Prepare a short write-up with the analysis of achieved results. Maximum 4 pages 12pt. NB! No title page! Include your name into the file name and state it in the header of the first page. Upload the file into ained.ttu.ee.
- Submit your solution by means of gitlab.cs.ttu.ee create a project iti8586_your_name_project and share it with Sven Nõmm. (please allow developer access!)
- You should attend chosen examination date.
- All the third party libraries and solutions should be properly cited. You are allowed to use standard and third party functions and classes as a part of your solution. Exception third party implementation provide entire solution.
- NB! Please submit your report as PDF file via ained.ttu.ee

Requirements:

1. You project should be related to a real world problem and should use non generated datasets.
2. Present corresponding data sets and provide corresponding references.
3. Explain necessity to use Machine Learning.
4. Proposed solution should include at least three different machine learning techniques, whereas one should belong to the area of unsupervised learning and one to the area of supervised learning. (Unless otherwise agreed with your teacher!)
5. Demonstrate working implementation.
6. Please keep in mind all the steps of Machine learning workflow.
7. Interpret achieved results.
8. During examination date answer any question regarding your project and course.

Report structure:

Report (write-up) should include the following sections: problem statement, explanation why machine learning is necessary, proposed solution, achieved results, interpretation of the achieved results.

1. Problem statement: provide clear problem statement and complement it with the working hypothesis and expected results.
2. Justify necessity to use Machine Learning techniques.
3. Explain proposed solution.
4. Report achieved results.
5. Interpret achieved results.
6. Illustrate your achievements with proper diagrams.

In addition to the consultation and examination times you may request an extra consultation or examination time. (subject of time availability)