Summary report on Machine Learning

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1 Introduction

This report provides an overview of machine learning, its methods, and applications. The peper is divided into six sections, first five describe one by one each of the attitudes and functions taken into account. The last one presents results and conclusions as well as our opinions concerning approprability.

2 K-Nearest neighbour

In description of nearest neighbour approach the information about extracted (selected) features, about their normalization and about similarity measure should be provided.

3 Decision tree

While presenting decision tree approach you should describe induction of single tree (e.g. what conditions were considered, how information gain was measured, when the induction process was stopped). This section should include an image showing how one induced tree (for one person) looks like.

4 Random forest

While presenting random forest approach you should describe working principles of random forest ensemble (e.g. how the diversity of ensemble members was assured, what was the procedure of results aggregation). This section should include images showing how sample induced trees in the fores (for one person) look like.

5 Person similarity

Describing person similarity approach report how people were compared and how the final movie evaluation was calculated.

6 Collaborative filtering

Discussing collaborative filtering approach focus on the process of training and on methods ensuring the generalization abilities of the trained model (e.g. selection of feature space dimensionality).

7 Summary and results

Presentation of results for every approach should be similar to make their comparison easier.