Literature Study: Visualization for Predictive Modeling

Motivation

Predictive modeling is used to predict the probability of an outcome for given input parameters of a process. For example, in medicine predictive modeling is utilized to diagnose diseases at the early-stages by using the case history of a patient. In industry, predictive modeling found a use in quality control of manufactured products. Your task will be to do a literature research and a report regarding predictive modeling and the visualization of predictive modeling results.

Goal

Create a state-of-the-art-report answering the following questions:
- What main methods are there currently which address predictive modelling?
- Which papers are dealing with visualization of probabilistic data?
- Which predictive models exist, and which task do they solve?
- How visualization can support in analysis of predictive modeling results?

The structure of this report might look like this:
- List state-of-the-art frameworks.
- Describe used techniques and what tasks they solve.
- Analyze the limitations and problems of each framework.
- Compare the frameworks and derive conclusions in respect to common challenges in predictive modeling.

Keywords: prediction modeling, machine learning, visualization, visualization of fuzzy data, visualization of probabilistic data, feature extraction, feature tracking, digital volume correlation

Starting literature:

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Kontakt

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