Bump hunting using Patient Rule Induction Method for Matlab/Octave

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Introduction

The toolbox implements the Patient Rule Induction Method (PRIM) introduced by Friedman & Fisher, 1999. PRIM is a method for finding "interesting" regions (bumps) in high-dimensional data. The regions are described by hyper-rectangles (boxes) containing simple decision rules.

The toolbox can be used on regression-type as well as classification-type data. It accepts input variables to be continuous, binary, and categorical, as well as manages missing values.

Download the toolbox at http://www.cs.rtu.lv/jekabsons/.

The toolbox code is licensed under the GNU GPL ver. 3 or any later version.

Available functions

The toolbox provides the following list of functions:
* `primparams` – creates configuration for the PRIM algorithm;
* `primbuild` – builds a sequence of boxes using PRIM;
* `primpredict` – predicts response values for the given query points;
* `primprint` – prints the rules of the boxes in a human-readable form.

For descriptions of all input and output arguments of the functions, refer to the .m files implementing the functions.

Citing the toolbox

Jekabsons G., Bump Hunting using Patient Rule Induction Method for Matlab/Octave, 2015, available at http://www.cs.rtu.lv/jekabsons/

References

Friedman J.H. and Fisher N.I. Bump hunting for high-dimensional data. Statistics and Computing, 9, 1999, pp. 123-143.