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Exploiting disagreement between high-dimensional variable selectors for uncertainty visualization. (English) Zbl 07547616

Summary: We propose combined selection and uncertainty visualizer (CSUV), which visualizes selection uncertainties for covariates in high-dimensional linear regression by exploiting the (dis)agreement among different base selectors. Our proposed method highlights covariates that get selected the most frequently by the different base variable selection methods on subsampled data. The method is generic and can be used with different existing variable selection methods. We demonstrate its performance using real and simulated data. The corresponding R package CSUV is at https://github.com/christineyuen/CSUV, and the graphical tool is also available online via https://csuv.shinyapps.io/csuv.

MSC:
62-XX Statistics

Keywords:
high-dimensional data; uncertainty visualization; variable selection

Software:
CSUV

Full Text: DOI

References:


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