Abstract

The storage capabilities and advanced in data collection has led to an information load and the size of databases increases in dimensions, not only in rows but also in columns. Data reduction (DR) plays a vital role as a data prepossessing techniques in the area of knowledge discovery from the huge collection of data. Feature selection (FS) is one of the well known data reduction techniques, which deals with the reduction of attributes from the original data without affecting the main information content. Based on the training data used for different applications of knowledge discovery, FS technique falls into supervised, unsupervised. In this paper an extensive survey on supervised FS technique describing the different searching approach, methods and application areas with an outline of a comparative study is covered.

References

- D. L. Swets and J. J. Weng. Efficient content-based image retrieval using automatic
- L. Yu, C. Ding, and S. Loscalzo. Stable feature selection via dense feature groups. In
Proceedings of the 14th ACM SIGKDD International Conference on Knowledge Discovery and
Data Mining, 2008.
- R. Caruana and D. Freitag. Greedy attribute selection. In International Conference on
- T. M. Cover and P. E. Hart. Nearest neighbor pattern classifier. IEEE Transactions on
- D. Koller and M. Sahami. Toward optimal feature selection. In International Conference
- J. R. Quinlan. C4.5: Programs for Machine Learning. The Morgan Kaufmann Series in
- H. Liu and R. Setiono. Feature Selection and Classification-A Probabilistic Wrapper
- D. Sun, D. Zhang. Bagging Constraint Score for feature selection with pairwise
- P. Pudil, P. Novovicov, N. Choakjarernwanit, J. Kittler. Feature selection based on
approximation of class densities by finite mixtures of special type. Pattern Recognition, 28, pp.
- S. Mika, G. Ratsch, and K. -R. Muller. A Mathematical Programming Approach to the
Kernel Fisher Algorithm. Advances in Neural Information Processing Systems, Cambridge, MA,
- M. Sebban, R. Nock. A hybrid filter/wrapper approach of feature selection using
- P. Somol, J. Novovicov, P. Pudil. Flexible-hybrid sequential floating search in statistical
feature selection. In Structural, Syntactic, and Statistical Pattern Recognition, Springer-Verlag,
- M. A. Esseghir. Effective wrapper-filter hybridization through grasp schemata. In The
4th Workshop on Feature Selection in Data Mining, pp. 45-54, 2010.
Survey on Feature Selection for Data Reduction

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Index Terms
Computer Science
Data Processing

Keywords
Data reduction Feature selection Filter Wrapper Embedded