Abstract

Data mining aims at extracting hidden information from data. Data mining poses a threat to information privacy. Privacy preserving data mining hides the sensitive rules and prevents the data from being disclosed to the public. Attribute reduction techniques reduce the dimensionality of dataset. Rough sets are used for attribute reduction to yield reduced sets. An attribute reduct is a subset of attributes formed using rough sets. This paper proposes two approaches to hide sensitive fuzzy association rules namely, decreasing support value of item
in RHS of association rule and Particle Swarm Optimization (PSO). The proposed approach is implemented using map reduce paradigm. Experimental results demonstrate the performance of the proposed approach.

References

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**Index Terms**

Computer Science  
Information Science

**Keywords**

Rough Sets  
Attribute Reduction  
Map Reduce  
Discernibility Matrix  
Pso  
Privacy Preserving Data Mining

Fuzzification

Dsr

Quantitative Association Rule

Lost Rule

Ghost Rule