Abstract

Classification is a data exploration and learning mechanism, which has been widely studied and a wide range of applications subject. Supervised Classification is based on association rules and if we increase number of association rule degree of accuracy of classification is also being increase but larger number of rule take longer time to classify. Recently researcher is focus to develop an model that increase the accuracy in minimum time. In this paper Genetic based multi class classification model is proposed. Proposed model also use Dempster shafer theorem for confining resultant rule set generated by GA algorithm. This paper used wine data set available at UCI machine learning website for classification and applies 3 cross fold mechanism for cross validation.

References

1. Dewan Md. Farid, Li Zhang, Chowdhury Mofizur Rahman, M.A. Hossain, Rebecca Strachan, “Hybrid decision tree and naïve Bayes classifiers for multi-class classification tasks”,

2. Seokho Kang, Sungzoon Cho, Pilsung Kang, Multi-class classification via heterogeneous ensemble of one-class classifiers, Engineering Applications of Artificial Intelligence, Volume 43, August 2015, Pages 35-43
6. Yingqin Gu1,2, Hongyan Liu3, Jun He1,2, Bo Hu1,2 and Xiaoyong Du1,2 “A Multi-relational Classification Algorithm based on Association Rules” pp.4-9 2009 IEEE.
9. Xiao-Lin Li , Xiang-Dong He “A hybrid particle swarm optimization method for structure learning of probabilistic relational models” in transaction of Elsevier Information Sciences 283 (2014) 258–266

Index Terms

Computer Science

Applied Mathematics
Keywords

Data Mining, Classification, Genetic Algorithm, Multi Class Classification, Dempster Shafer Theorem.