A Genetic Algorithm for Discovering Classification Rules in Data Mining

Abstract

Data mining has as goal to discover knowledge from huge volume of data. Rule mining is considered as one of the usable mining method in order to obtain valuable knowledge from stored data on database systems. In this paper, a genetic algorithm-based approach for mining classification rules from large database is presented. For emphasizing on accuracy, coverage and comprehensibility of the rules and simplifying the implementation of a genetic algorithm. The design of encoding, genetic operators and fitness function of genetic algorithm for this task are discussed. Experimental results show that genetic algorithm proposed in this paper is suitable for classification rule mining and those rules discovered by the algorithm have higher classification performance to unknown data.

References


**Index Terms**

Computer Science  
Data Mining

**Keywords**

Classification Rule  
Genetic Operators  
Fitness Function  
Predictive Accuracy