Mining Frequent Itemsets from Large Data Sets using Genetic Algorithms

Abstract

Association Rules are the most important tool to discover the relationships among the attributes in a database. The existing Association Rule mining algorithms are applied on binary attributes or discrete attributes, in case of discrete attributes there is a loss of information and these algorithms take too much computer time to compute all the frequent itemsets. By using Genetic Algorithm (GA) we can improve the generation of Frequent Itemset for numeric attributes. The major advantage of using GA in the discovery of frequent itemsets is that they perform global search and its time complexity is less compared to other algorithms as the genetic algorithm is based on the greedy approach. The main aim of this paper is to find all the frequent itemsets from given data sets using genetic algorithm.

Reference

- Pujari A.K., Data Mining Technique, Universities Press, 2001
- Pasquier, N., Bastide, Y., Taouil, R., Lakhal, L.: Discovering Frequent Closed Itemsets for Association Rules

**Index Terms**

Computer Science  
Artificial Intelligence

**Key words**

Genetic Algorithm (GA)  
Association Rule Mining (ARM)  
Frequent itemset  
Data Mining (DM)