

عنوان مقاله:

A New Algorithm for High Average-utility Itemset Mining

محل انتشار:

مجله هوش مصنوعی و داده کاوی، دوره 7، شماره 4 (سال: 1398)

تعداد صفحات اصل مقاله: 14

نویسندگان:

A. Soltani - Dept. of Computer Engineering, University of Bojnord, Bojnord, Iran

M. Soltani - Dept. of Computer Engineering, Quchan University of Technology, Quchan, Iran

خلاصه مقاله:

High utility itemset mining (HUIM) is a new emerging field in data mining which has gained growing interest due to its various applications. The goal of this problem is to discover all itemsets whose utility exceeds minimum threshold. The basic HUIM problem does not consider length of itemsets in its utility measurement and utility values tend to become higher for itemsets containing more items. Hence, HUIM algorithms discover a huge enormous number of long patterns. High average-utility itemset mining (HAUIM) is a variation of HUIM that selects patterns by considering both their utilities and lengths. In the last decades, several algorithms have been introduced to mine high average-utility itemsets. To speed up the HAUIM process, here a new algorithm is proposed which uses a new list structure and pruning strategy. Several experiments performed on real and synthetic datasets show that the proposed algorithm outperforms the state-of-the-art HAUIM algorithms in terms of runtime and memory consumption.

کلمات کلیدی:

data mining, Frequent Pattern, Utility, High Average-Utility itemset

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/964782>

