

rules. Mining frequent closed itemsets provides an interesting alternative since it inherits the same analytical power as mining the whole set of frequent itemsets but generates a much smaller set of frequent itemsets and leads to less and more interesting association rules than the former. In this paper, we proposed MinRPset algorithm for locating minimum frequent pattern sets is introduced. It mines frequent patterns, and then find closed frequent patterns during a post-processing step. As a result of the utilization of the post-processing strategy, MinRP set have the extra benefits besides giving fewer representative patterns.

References

- [1] J.J. Cameron, A. Cuzzocrea, F. Jiang, C.K.-S. Leung, Mining frequent itemsets from sparse data streams in limited memory environments, in: Proceedings of the WAIM 2013, Springer, pp. 51–57.
- [2] E. Çem, Ö. Özkasap, ProFID: practical frequent items discovery in peer-to-peer networks. *Future Gener. Comput. Syst.* 29 (6) (2013) 1544–1560.
- [3] C.K.-S. Leung, C.L. Carmichael, Exploring social networks: a frequent pattern visualization approach, in: Proceedings of the SocialCom 2010, IEEE Computer Society, pp. 419–424.
- [4] N. Pasquier, Y. Bastide, R. Taouil, and L. Lakhal. Discovering frequent closed itemsets for association rules. In Proc. 7th Int. Conf. Database Theory (ICDT'99), pages 398{416, Jerusalem, Israel, January 1999.
- [5] R. Agarwal, C. Aggarwal, and V. V. V. Prasad. A tree projection algorithm for generation of frequent itemsets. In *Journal of Parallel and Distributed Computing (Special Issue on High Performance Data Mining)*, (to appear), 2000.
- [6] R. Agrawal and R. Srikant. Fast algorithms for mining association rules. In Proc. 1994 Int. Conf. Very Large Data Bases (VLDB'94), pages 487{499, Santiago, Chile, September 1994.
- [7] R. Agrawal and R. Srikant. Mining sequential patterns. In Proc. 1995 Int. Conf. Data Engineering (ICDE'95), pages 3{14, Taipei, Taiwan, March 1995.
- [8] R. J. Bayardo. Efficiently mining long patterns from databases. In Proc. 1998 ACM-SIGMOD Int. Conf. Management of Data (SIGMOD'98), pages 85{93, Seattle, Washington, June 1998.
- [9] J. Han, G. Dong, and Y. Yin. Efficient mining of partial periodic patterns in time series database. In Proc. 1999 Int. Conf. Data Engineering (ICDE'99), pages 106{115, Sydney, Australia, April 1999.
- [10] J. Han, J. Pei, and Y. Yin. Mining frequent patterns without candidate generation. In Proc. 2000 ACM-SIGMOD Int. Conf. Management of Data (SIGMOD'00), Dallas, TX, May 2000.
- [11] H. Mannila, H. Toivonen, and A. I. Verkamo. Efficient algorithms for discovering association rules. In Proc. AAAI'94 Workshop Knowledge Discovery in Databases (KDD'94), pages 181{192, Seattle, WA, July 1994.
- [12] H. Mannila, H. Toivonen, and A. I. Verkamo. Discovery of frequent episodes in event sequences. *Data Mining and Knowledge Discovery*, 1:259{289, 1997.

- [13] M. J. Zaki and C. Hsiao. Charm: An efficient algorithm for closed association rule mining. In Technical Report 99-10, Computer Science, Rensselaer Polytechnic Institute, 1999.
- [14] A Flexible Approach to Finding Representative Pattern Set, Guimei Liu, Haojun Zhang, and Limsoon Wongs, *IEEE Transactions on knowledge and data engineering*, vol. 26, no. 7, July 2014

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