عنوان مقاله:

An Ensemble Learning Approach for Data Stream Clustering

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خلاصه مقاله:

Data stream clustering is one of the most interesting issues in data mining which refers to immense of data that brought extreme restrictions to process. Ensemble Clustering has recently been paidattention as a robust method on the basis of recruiting several algorithms to analyze data and combine their results to gain moreaccurate analysis than every individual algorithm. Finding more accurate clusters, extract unknown structures of data and scalabilityare some advantages of ensemble clustering. Besides, there is no need prior knowledge about input data structure or algorithm.Accordingly, developing an ensemble clustering method to extract outstanding clusters from data stream is the theme of this article.Hence, the algorithm of Stream Ensemble Fuzzy C-Means, SEFCM, has been proposed. SEFCM comprised of three stages; 1) divide data stream to smaller blocks; 2) cluster every blocks using ensemble clustering algorithm; and 3) combine the concluding partitions and extract an absolute partition. Fulfilling experimental results of the proposed algorithm demonstrate the robustness of SEFCM to produce excellent clusters

کلمات کلیدی:
data stream, ensemble clustering, co-occurrence matrix, SEFCM

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