عنوان مقاله:

Effective Data Reduction for Time-Aware Recommender Systems

محل انتشار:

مجله کنترل و بهینه سازی در ریاضیات کاربردی, دوره 8, شماره 1 (سال: 1402)

تعداد صفحات اصل مقاله: 21

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خلاصه مقاله:

In recent decades, the amount and variety of data have grown rapidly. As a result, data storage, compression, and analysis have become critical subjects in data mining and machine learning. It is essential to achieve accurate compression without losing important data in the process. Therefore, this work proposes an effective data compression method for recommender systems based on the attention mechanism. The proposed method performs data compression on two levels: features and records. It is time-aware and based on time windows, taking into account users' activity and preventing the loss of important data. The resulting technique can be efficiently utilized for deep networks, where the amount of data is a significant challenge. Experimental results demonstrate that this technique not only reduces the amount of data and processing time but also achieves acceptable accuracy.

کلمات کلیدی:

Aggregate, Recommender systems, Feature selection, Correlation matrix, Dataset compression