基于联合概率矩阵分解的微博关注推荐算法

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摘　要：在传统的概率矩阵分解算法基础上，考虑交互行为的时效性建立用户影响力模型，并结合静态关注关系，提出了基于联合概率矩阵分解的微博关注推荐算法（UPMFF-L）.在使用 scrapy 爬取新浪微博得到的数据集上的实验结果表明，与 NMF、PMF 和 SoRec 算法相比，UPMFF-L 算法在不同数据密度下的 F1-Measure 平均提升了 11.82%.

关键词：微博关注推荐；联合概率矩阵分解；关系相似度；影响力模型

Unified probabilistic matrix factorization of follow

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Abstract：We add the timeliness of interaction behavior into the traditional probability matrix factorization algorithm to establish the newly proposed user influence model Combined with the static attention relationship, a recommendation algorithm based on unified probabilistic matrix factorization is proposed. The experimental results on the data set established by Sina Weibo show that compared with NMF, PMF, SoRec and other algorithms, the proposed algorithm has an average increase of 11.82% on the F1-Measure index under different data densities.

Key words：weibofollow recommendation; unified probabilistic matrix factorization; relationship similarity;influence model

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