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An Evaluation of Machine Learning Algorithms Used for Recommender Systems in Streaming Services

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Abstract: With the exponential growth of streaming services, the demand for effective recommender systems has become paramount. Recommender systems, powered by machine learning algorithms, play a critical role in analyzing user behavior and preferences to deliver personalized content recommendations. However, the abundance of available algorithms poses a challenge for streaming platforms in determining the most suitable approach for their recommender systems. This research paper presents an evaluation of various machine learning algorithms used in recommender systems for streaming services. Through a comparative analysis of collaborative filtering, content-based filtering, matrix factorization techniques, deep learning algorithms, and emerging approaches such as reinforcement learning and hybrid models, this study aims to provide insights into the strengths, limitations, and performance of each approach. By assessing the effectiveness of these algorithms, exploring their applications, and discussing recent advancements, this research contributes to the advancement of recommendation technology in streaming services, ultimately enhancing user satisfaction and engagement.

Keywords: recommender systems, streaming services, algorithms

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