

Movie Recommendation System

Prajwal Madavi¹, Jayant Tekam², Prof. Darshan Khirekar³

Department of Master of Computer Application^{1,2}

Assistant Professor, Department of Master of Computer Application³

K. D. K College of Engineering, Nagpur, Maharashtra, India

prajwalmadavi.mca23@kdkce.edu.in¹, jayanttekam.mca23@kdkce.edu.in², darshan.khirekar23@kdkce.edu.in³

Abstract: *With the exponential growth of digital media consumption, the demand for personalized movie recommendation systems has intensified. This paper presents a novel approach to enhancing movie recommendation systems by integrating collaborative filtering and content-based filtering techniques. Collaborative filtering leverages user-item interactions to generate recommendations, while content-based filtering utilizes movie attributes to infer user preferences. The proposed system combines the strengths of both methods to provide more accurate and diverse recommendations. Additionally, we introduce a hybrid recommendation algorithm that dynamically adjusts the weighting between collaborative and content-based filtering based on user engagement and item diversity. Evaluation results demonstrate that the hybrid approach outperforms traditional recommendation methods in terms of recommendation accuracy and user satisfaction. Furthermore, we conduct experiments on a real-world dataset to validate the effectiveness and scalability of the proposed system. This research contributes to advancing the field of movie recommendation systems by offering a comprehensive solution that addresses the limitations of existing approaches and provides valuable insights for future research and development.*

Keywords: Collaborative filtering, content-based filtering, hybrid approach, hybrid recommendation algorithm, real-world dataset.

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