Department of Computer Engineering
B. Tech. Computer Science & Engineering
CSD334 MINI PROJECT
Abstract - WatchWise
Mood-Based Movie Recommendation System

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February 2, 2025

Keywords:
Mood Based Movie Recommendation System, Mood-Based Analysis, Hybrid Recommendation Algorithms, Content-Based Filtering (CB), Collaborative Filtering (CF), Personalized Movie Suggestions, Emotional Context, User Interaction, Recommendation Diversity, Movie Metadata, User-Centric Design, Information Retrieval, Ratings and Reviews

Abstract

Our Mood-Based Movie Recommendation System, WatchWise, introduces a novel approach to personalized movie recommendations by integrating mood-based analysis with hybrid recommendation algorithms. This system combines Content-Based Filtering (CB) and Collaborative Filtering (CF) to deliver diverse and tailored suggestions. Users interact with the system by describing their current mood, from which an appropriate emotional state is extracted. Movies aligning with this mood are then recommended, ensuring a more engaging and intuitive user experience.

The recommendation process leverages user-inputted mood prompts alongside historical data and preferences to identify suitable matches. By blending individual preferences with collaborative insights, the system overcomes challenges such as limited data or lack of explicit user ratings, enhancing both the accuracy and variety of recommendations. Core features include mood-based movie suggestions, similar movie recommendations, and tools for exploring related titles.

This innovative combination of emotional context and hybrid recommendation techniques allows the system to provide users with a highly personalized movie discovery journey. By tailoring suggestions to both the user's immediate feelings and long-term preferences, the system ensures relevance and improves the overall entertainment experience. WatchWise exemplifies how technology can harness human emotions to create meaningful and satisfying interactions. In addition to personalized recommendations, the platform facilitates an engaging and efficient exploration process by analyzing user interactions, contextual features, and movie metadata. It also supports features like ratings and reviews to continually refine its recommendations. By addressing challenges such as sparsity in user interaction data and limited recommendation diversity, the system ensures a robust solution for modern movie recommendation needs.

In summary, WatchWise integrates sophisticated algorithms with a user-centric approach to provide a seamless and engaging movie discovery experience. By catering to diverse user preferences and streamlining information retrieval, it stands out as a valuable resource for movie enthusiasts.

Conclusion

WatchWise effectively bridges the gap between user emotions and personalized movie recommendations through an innovative blend of mood-based analysis and hybrid recommendation algorithms. By integrating Content-Based and Collaborative Filtering techniques, the system provides highly relevant and diverse movie suggestions tailored to both immediate moods and long-term preferences.

This approach not only enhances user engagement but also overcomes challenges such as data sparsity and limited diversity in recommendations. Additionally, features like ratings, reviews, and contextual analysis contribute to continuous refinement, ensuring an intuitive and satisfying user experience.

Ultimately, WatchWise exemplifies how technology can harness human emotions to revolutionize content discovery, making movie recommendations more meaningful and enjoyable for users.

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