

Dynamic Quill Quest using ML

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Abstract: Recommender systems are essential for screening online material according to user preferences in the quickly changing digital world of today. These systems are successful, but they have many shortcomings, especially when it comes to scalability and sparse data. In order to solve the cold start problem, the Singular Value Decomposition (SVD) algorithm is used in this research to practically develop a book recommendation system. We give a thorough rundown of the system's architecture, preprocessing procedures, dataset preparation, and SVD algorithm integration. This study tries to provide insights into the real-world problems and solutions for building efficient recommendation systems by outlining our methodology and going over the experimental findings. Our approach and results provide guidance for future research aimed at improving the reliability and effectiveness of recommender systems.

Keywords: Deep learning, content-based filtering, collaborative filtering, machine learning, recommender system, cold start problem, Singular Value Decomposition (SVD), data preprocessing, implementation, user-item matrix.