

General Purpose Recommendation System

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Abstract: *A recommendation system is a class of information retrieval systems that provides personalized suggestions to users. Our approach is to generalize the process of creating a recommendation system so that it can be used effectively in multiple domains. This approach can be achieved by collaborative filtering by using the website's clickstream analytics. Data related to user clicks can easily be extracted and this data's use is limited to analyse the user behaviour. We can use this extracted data to generate recommendations for the users and increase engagement on the website. The identifiers of users and items can be passed along with the user click rate to a supervised machine learning model of matrix factorization. We are using alternating least square (ALS) to predict the recommended items. The suggested system interfaces with the client system using a web API which will collect data and generate recommendations.*

Keywords: Collaborative Filtering, Clickstream Analytics, Matrix Factorization, Alternating Least Square

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