

Abstract

These days, information overload phenomenon is a common thing. Information overload that happened gives difficulties for user to search information that relevant with what they want. Because of that, recommender system is used to overcome that problem. Recommender system is a system that give recommendation for user according to user preference, user behavior, etc. There are two famous techniques in recommender system, they are Collaborative Filtering and Content-based Filtering. But those two techniques still have its weakness, so that it's important to generate another technique to improve recommender system quality. One of the solution is using hybrid recommender system.

In this final task, switching hybrid recommender system using collaborative filtering and support vector machines classifier is used. The implementation of switching hybrid recommender system is expected to overcome the weakness of each method. The idea of switching hybrid recommender system is comparing the prediction result of each method with alpha and beta parameter. From those comparison, we'll see which one is the best prediction. Alpha parameter will be compared with the difference of the probability for each class, so that we can conclude if the difference is large or not. The confidence of SVM classifier prediction will high if the probability difference is high either. The beta parameter show if the difference of prediction made by each method is high or not.

To evaluate prediction result, MAE is used in this final task. MAE will measure the difference of the system predicted rating and the true rating assigned by user.

Keyword: *recommender system, collaborative filtering, content based filtering, support vector machine classifier, switching hybrid recommender system.*