

Finding the optimal algorithm and hyperparameters for modelling has been a challenge. I introduce Auto-Surprise, an Automated Recommender System library. Auto-Surprise is an extension of the Surprise recommender system library and eases the algorithm selection and configuration process. It uses a parallel Sequential Model Based Optimization approach together with Tree of Parzen Estimator's for finding the best algorithm configurations. Compared to an out-of-the-box Surprise library, Auto-Surprise performs upto 4% better in terms of RMSE when evaluated with MovieLens, Book Crossing and Jester datasets. It may also result in the selection of an algorithm with significantly lower runtime. Compared to Surprise's grid search, Auto-Surprise performs equally well or slightly better in terms of RMSE and is notably faster in finding the optimum hyperparameters. Auto-Surprise is designed to be easy to use; the entire optimization process can be executed in just one line of code. As such, a user can create a well performing recommendation model without having any knowledge in machine learning.