

Abstract

The memetic algorithm (MA) is an evolutionary metaheuristic that can be viewed as a hybrid genetic algorithm combined with some kinds of local search. In this paper, we propose a memetic algorithm combined with a support vector machine (SVM) for feature selection and classification in Data mining. The proposed approach tries to find a subset of features that maximizes the classification accuracy rate of SVM. In addition, another hybrid algorithm of MA and SVM with optimized parameters is also developed. The two versions of our proposed method are evaluated on some datasets and compared with some well-known classifiers for data classification. The computational experiments show that the hybrid method MA + SVM with optimized parameters provides competitive results and finds high quality solutions