

Sentiment Analysis of Ensemble-Based Classifiers for E-Mail Data

Authors : Muthukumarasamy Govindarajan

Abstract : Detection of unwanted, unsolicited mails called spam from email is an interesting area of research. It is necessary to evaluate the performance of any new spam classifier using standard data sets. Recently, ensemble-based classifiers have gained popularity in this domain. In this research work, an efficient email filtering approach based on ensemble methods is addressed for developing an accurate and sensitive spam classifier. The proposed approach employs Naive Bayes (NB), Support Vector Machine (SVM) and Genetic Algorithm (GA) as base classifiers along with different ensemble methods. The experimental results show that the ensemble classifier was performing with accuracy greater than individual classifiers, and also hybrid model results are found to be better than the combined models for the e-mail dataset. The proposed ensemble-based classifiers turn out to be good in terms of classification accuracy, which is considered to be an important criterion for building a robust spam classifier.

Keywords : accuracy, arcing, bagging, genetic algorithm, Naive Bayes, sentiment mining, support vector machine

Conference Title : ICSNA 2020 : International Conference on Social Network Analysis

Conference Location : Boston, United States

Conference Dates : April 23-24, 2020