

Abstract

Interview is one of the most important stages during talent recruitment to find the best candidates who fit with the corporate culture. However, an interview usually involves third-party psychology experts and professionals to conduct both the interview process and analysis, and thus can be fairly costly for the company. To this end, companies seek alternative methods to reduce manual tasks and human effort in talent recruitment by introducing automation using machine learning technology. In this paper, we investigate machine learning methods to grade the corporate culture fitness level of job applicants by analyzing the interview verbatim. To classify the interview verbatim, we compare SVM, which has been proven to be a very effective text classifier in general, with naive Bayes and KNN. In this study, SVM often demonstrates higher performance on any dataset and in many different schemes compared to naive Bayes and KNN. SVM achieves the average accuracy at 86%, better than naive Bayes at 81% and KNN at 79%.

Keywords: talent recruitment, text classification, SVM, naive Bayes, KNN.