Abstract

Students’ Employability Prediction is a major concern for the institutions offering higher education. A method for early prediction of employability of the students is always desirable to take timely action. In this paper, an efficient data mining approach is proposed to improve students’ employability prediction. For Students’ Employability Prediction, there are some steps which include data acquisition, data pre-processing, feature subset selection and decision and ranking. For feature subset selection, Chi-Square, Gini index, Information Gain and Correlation Coefficient methods are used and for best feature selection Crow Search based Feature Selection Algorithm is used. Hybridized Hidden Markov Model and Support Vector Machine (HMM-SVM) is used for the prediction of employability. The experimental results are carried out and compared with some existing methods which includes the classification based on Support Vector Machine (SVM), Hidden Markov Model (HMM), k-Nearest Neighbour (kNN) and Artificial Neural Network (ANN). When comparing with the existing methods, the experimental outcomes showed that 93.4% accuracy was obtained by using HMM-SVM classifier.
References

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An Efficient Data Mining Approach to Improve Students' Employability Prediction


Index Terms

Computer Science  
Data Mining

Keywords

Gini Index, Chi-Square, Crow Search based Feature Selection Algorithm, Hidden Markov Model, Support Vector Machine