Evaluating the Performance of Teaching Assistant Using Decision Tree ID3 Algorithm

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Abstract

Data mining (DM) is a class of database application that look for the hidden patterns in a collection of data and their relationships. DM is used in developing methods for discovering facts from data which come from educational environment and it becomes educational data mining (EDM). The educational institutions can use classification for complete analysis of students' characteristics. This paper details the Iterative Dichotomiser (ID3) algorithm in classification technique. The ID3 algorithm builds a decision tree from a dataset. This action we accumulates Teaching Assistant Evaluation's (TAE) dataset from UCI machine learning repository. This paper demonstrates the ID3 algorithm to construction of decision tree (DT). The implementation of this algorithm is useful to study of teaching performance over three regular semesters and two summer semesters of 151 Teaching Assistant (TA). In this work various kinds of impurities measures and discovery the maximum information gain at various iterations levels. This task is to extract the knowledge that describes TA performance over summer and regular semester. This exertion will help the institute to growth the performance.
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References


Index Terms

Computer Science Algorithms

Keywords

Educational Data Mining, Iterative Dichotomiser 3 (ID3) Algorithm, Decision Tree, Teaching Assistant