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(57) Abstract :

This invention presents a method of exercises recommendation based on machine learning. This method can recommend more suitable exercises to students according to the category they belong to. Firstly, we use linear regression and EM algorithm to accurately model the students' mastery of each knowledge point. For each knowledge point, students are divided into several categories according to their mastery of the knowledge point and their average mastery of all knowledge points. For each knowledge point, according to the student history answer record, find out the exercise that can make each kind of student get bigger promotion respectively. For the students who need to recommend the exercises that contain the specified knowledge points, we first use the k-nearest neighbor algorithm to classify the students, and then recommend the exercises suitable for the students. It has been proved by experiments that this method can help students to achieve greater improvement in the same number of exercises.

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