ABSTRACT

In order to help undergraduate students towards successfully completing their degrees, developing tools that can assist students in choosing a path for their future is a significant task in the education domain.This involves the selection of right courses, projects and other resources.The optimal set of courses for each student should include courses that help him/her graduate in a timely fashion and for which he/she is well-prepared for so as to get a good grade in. To this end, we propose two different grade-aware course recommendation approaches to recommend to each student his/her optimal set of courses. The first approach ranks the courses by using an objective function that differentiates between courses that are expected to increase or decrease a student’s GPA. The second approach combines the grades predicted by grade prediction methods with the rankings produced by course recommendation methods to improve the final course rankings. The tool also focuses on recommending the right educational resources like videos, tutorials, research papers and project suggestions using predictive analysis. This will enable the student to build his/her profile. Eventually the student will have a portfolio that is more than enough for him/her to pursue their desired career.