Algorithm For Course Recommendation System

1 . Making a sentiment classifier for getting a uniform Score from new Reviews

Step 1 : Get the review DataSet containing the user reviews , the course name , a rating parameter

Step 2 : To get a random set of course data , shuffle the dataset using **sklearn.utils.shuffle .**

Step 3 : Preprocessing the dataSet .

a) Removing Non english reviews.

b) Reindexing the dataset after shuffling .

Step 4 : Making the featureSet .

a) Select most common 3000 words as features .

b) Make a 2d matrix with above selected words as keys and True False as value for each review .

Step 5 : Train the NaiveBayesClassifier using the above created feature sets .

Step 6 : For any new review generate the featureSet and pass it in the classifier for predicting the score

END

2. Making the Recommendation System

Step 1 : Get a User Item Matrix with Each user giving reviews about the course they have taken

from the list of courses.

Step 2 : Pass Each review into the review classifier and generate a score .

Keep the generated score as value of the review .

Step 3 : Covert any Text Field except for reviews into a numerical field by giving each entry a

Specific numerical value . Eg

Step 4: For each user Calculate a score using

The Score Calculation Formula Definition

A). Year : The year of study of the user among (1,2,3,4)

B). Difficulty Level : The difficulty of the course required (Beginner,

Intermediate ,Advanced)

C) Length Of Course (in Months) : The time duration of the course needed (1,2,3,4,5)

D) Certification : If certificate is required (Yes,No )

Score =

Step 5 :Train The Linear Regression classifier for the above calculated score of each user .

With their input being the four numerical columns and the label being the score .

Step 5 : For any new user get the four input fields and calculate the score using the classifier.

Step 6 : Get the users with same score as the new User and for the reviews where review Score is

high recommend them as recommendation to the User.

END