

College Recommendation System using Machine Learning

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Abstract - Making a career decision by selecting the appropriate college is very important for every students who are eager for engineering field. Students get confused while filling the form of admission process, due to improper information and lack of knowledge about how to set the preference list of colleges. The purpose of the project entitled as "college recommendation system using machine learning" is the web application, because it's user friendly interface. This web application is accessible from anywhere and anytime. This paper proposes smart recommend model for predicting using classifier algorithm, C4.5. This application requires the user to fill in some of the mandatory details and provides the student with the probability of securing admission in the college. The student can also avail a list of colleges according to the filters applied, which can be used for application in the admission process. Thus, our application would prove helpful for the student to successfully secure admission in the best suitable and desired college in a hassle-free manner.

Key Words: DTE, C4.5, DATASET, TRAINING DATA, PREDICTION.

1. INTRODUCTION

In our digital world, we can see that every facilities are available online, one of which is admission process. Students have to fill the online form to get admitted into a colleges. So, it is necessary to have subsequent knowledge about colleges. Due to wide range of various applications on internet, recommendation system is essential for users. So, we are developing a system to recommend college for admission seekers. After the completion of higher school education students want to take admission into professional colleges

Like engineering they face lot of problems. Our project will predict the list of colleges in which the user likely to get admit depending upon their merit number, cast, gender and the area where he/she interested. The system will uses the historical data of the different colleges, and using this data predict the most probable college for students. The proposed system uses machine learning algorithms and techniques. As a machine learning problem, for training data, the system reads an internal database for college cut-off. User can predict the college rather than waiting for decision.

1.1 ADMIN

In the admin module, admin have the authority of add colleges, add cut-off of previous years, manage/view colleges and also view the feedback about system send by users.

1. Add College

In the add college module, admin provides the details for college like name, address, streams provided etc. those details are saved in database.

2. Add Cut-Off

Admin are provide details of colleges as well as it's provides cut-off previous years.

3. Manage/View Colleges

Admin can update/manage details for colleges and delete them if require.

4. View Feedback

Admin can view the feedback sent by the students.

1.2 STUDENT

In the system student module, students can register by providing their basic details and also students can view colleges.

1. Register

In the register section, students will register themselves to the system by providing the details like name, email-id, marks etc.

2. View College

Students will be provided an option to show colleges near him and show all colleges based on his score.

3. View Profile

If students want to see their profile details then there is view profile option where students can view their own profile details.

4. Feedback

Student can send the feedback to notify admin about the system.

2. LITERATURE SURVEY

In the College Admission Predictor and Smart List Generator the developer are used Adaboost algorithm. The AdaBoost algorithm is a binary classifier, which classifies the given input into two classes. It classifies the input data based on the classification from multiple decision trees. The majority of the classification obtained from the determined number of decision trees is the classification of the algorithm.¹

College Admission Predictor System is a web based application system in which students can register their marks along with their personal information. This helps to predict their admissions in colleges. Administrator can add the college details and the batch details. Using this Application, the entrance seat allotment becomes easier and efficient.²

The A Novel Approach for Colleges Recommendation for Admission Seekers Using Decision Tree proposed a novel design for college recommendation for students. The system provides recommendation about which colleges a student can get admitted to taking into consideration not only merit scores but other admission criterias as well.³

3. PROPOSED WORK

The proposal mainly discusses the use of system for finding appropriate colleges for students based on their CET scores. The algorithm has been developed can be modified accordingly so that it will function properly for the new pattern as well, for obtaining admission for different colleges. The main focus here has been given to the engineering field and the data has been collected accordingly. So, the students opting for the engineering fields may enter their marks in order to get an appropriate for the colleges suitable for them. Similarly this system is used for several other fields such as medical, pharmacy etc.

Table -1: College Recommendation System Using Machine Learning Special Features

Sr. No.	Features
1.	Manage large number of student details.
2.	Limited the paper work and limited efforts
3.	Manage all details of students who registered for the course.
4.	Maintaining the students data effectively.
5.	View all the details of students.
6.	Activities like updating, modification, deletion of record should be easier.
7.	Storing the student and college information.
8.	Students will get list of possible colleges in which they get admission it will easy for them to give preferences.
9.	Students will be able to make right choice of colleges.
10.	Our system will reduce the stress of students.

The features of the system maintain the students records in limited time and less paper work, which helps the students to predict more accurate college in limited efforts.

Design and implementation: The system is designed for two modules Admin and Student respectively, which are the basic working areas in the system and which having limited modules in it. In the admin module, admin can provide the details of the colleges which are stored in the database. It also provides the cut-off of the previous years and manages the details of colleges and also deletes it whenever required. Admin have authority to see the feedback sent by users. The module is Student which contains the various sections. There is registration form available for students in which they can register themselves by providing basic details. They can view colleges, view their own profile and send feedback about system. The internet connection is required for web application and it provide user-friendly interface.

System Model: The Fig. Shows the system architecture of the college recommendation system, which gives the workflow of all sections.

The system uses the machine learning decision tree algorithm "C4.5" which gives more accurate result than compare to other algorithms in machine learning.

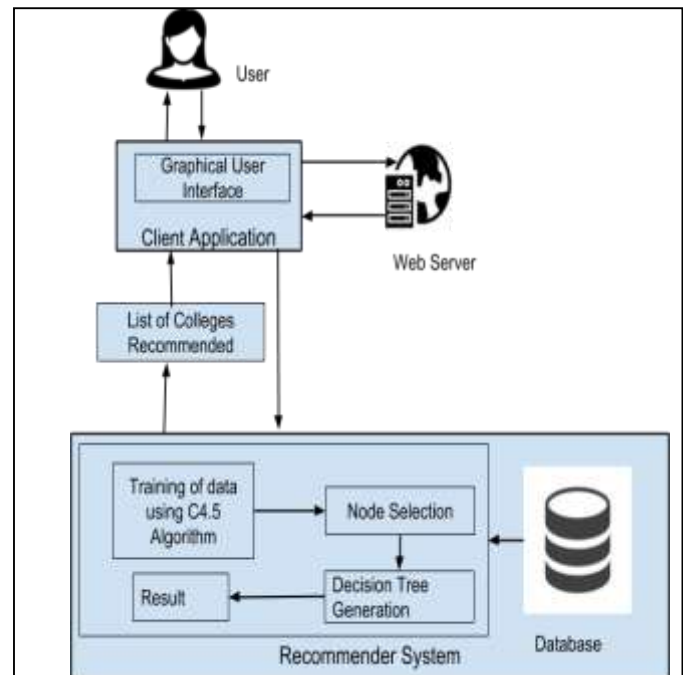


Figure: System Architecture Of College Recommendation System

4. CONCLUSION

The web application designed for "College Recommendation System" is very user friendly, time saving, efforts saving application. This web application is capable to predict most preferable colleges for students. Admin having all the administrative authorities which helps to manage all the important tasks. The system provide recommendation to students about colleges in which they get admitted. The application work efficiently and helps students to get admitted in the college which they deserve.

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