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Recuriter Recommendation System

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Abstract - *Placement of undergraduate is one of the foremost necessary objectives of a college. That's why all the college, strive to strengthen their TPO so as to improve their institution on a whole. This can invariably be useful to each undergraduate, as well as the institution. The target is to research previous years student's data, Information and use it to predict the position probability of the present undergraduate in current placement. The Project model will propose with an algorithm to predict the same. It is generally divided in 3 classes that are Collaborative, Content-based and Hybrid recommendation approach. This project will show case a model to generate recommendations based on marks of student by using Logistic Regression Model. It discovers best solutions which might have otherwise remained hidden. The recommender system implementation in college campus can result a recommendation in placement of companies to student as per the needs in shortest doable time. It will expect as a scenario where we've got tried to attain the results whereas keeping in mind the needs of employer and employee.*

Keywords—*Recommendation system, Content-Based Filtering, specific System, Machine Learning, Placement System*

1. INTRODUCTION

Our project aims to develop a recruiter recommendation for Undergraduates keeping an intension of making a placement system at academic level which predicts the chance of students obtaining placements and helps in rising their skills before the recruitment process starts. We are availing machine learning for recruiter recommendation, we are contemplating K-nearest neighbors (KNN), Support Vector Machine (SVM), Logistic Regression, Random Forest to classify students into acceptable clusters and the result would facilitate them in uplifting their profile, accuracy of respected algorithms are noted and with the comparison of assorted machine learning techniques, this would facilitate each recruiters as well as students throughout placements and connected activities

1.1 Literature Survey

A. Campus Placement Prediction Using Supervised Machine Learning Techniques.

This model is planned with an algorithm to predict the same. Data pertaining to the study were collected form the same institution for which the placement prediction is completed, and also additionally data pre-processing ways were applied. This planned model is additionally compared with different ancient classification algorithms like Decision tree and Random Forest with regards to accuracy, precision and recall. From the results obtained it's found that the planned algorithm performs considerably higher compared with the other algorithms

B. Recommendation System using Content Filtering

This paper presents a model to get recommendations supported on marks of student. It discovers best solutions which might have otherwise remained hidden. The case study performed on the recommender system implementation in college campus will result a recommendation in placement of undergraduates (employee firms (employer) as per their necessities in shortest potential time. It may be expected as a circumstance where we've tried to attain the results whereas keeping in mind the wants of employer and employee.

C. Job Placements Prediction using Fuzzy Logic:

The suggested study has collected data on students, who had different information about their previous and current academic records, and then different classification algorithms along with the Data Mining Tool (VEKA) are used to analyses academic performance in training and accommodation. This study presents a planned model supports a classification approach to seek out a more robust evaluation methodology so as to predict the undergraduate's accommodation. There are several basic classification algorithms and statistical ways which will be used pretty much as good resources for classifying student datasets in education. In this article, a fuzzy inference system was used to predict the undergraduate's performance and improve academic performance. This model will verify the connection between student accomplishment and campus placement.

D. Placement Predictive Analysis using ML

A placement predictor could be a device which will forecast the chance or type of business that a student within the pre-final year has probabilities of being placed. While a forecasting program could facilitate within the academic preparation of an institution for future years. With the emergence of data mining and machine learning, through analyzing the data set of the previous student year, various predictive models were applied. This paper introduces a

literature study for pre-final year engineering graduate students on totally different statistical choice models.

2. Proposed Work

METHODOLOGY

Machine Learning is done using several available algorithms. Every algorithm has its own set of merits and demerits, these will modify the type of dataset being used or for the type of problem we have at hand. Given below are some of the algorithms that we have a tendency to use. A complete description accompanies every algorithm.

A. KNN

KNN stands for k-nearest neighbors. This can be a manageable algorithm which will be able to resolve classification and regression sort of issues. It's a supervised machine learning rule that means labels are used. The basic operating of this algorithm revolves around the concept that similar things are continuously in close proximity inside one another. So, for this algorithm to supply any fruitful results, this can be assumption that is taken. Similarity in KNN is expressed using distance.

Advantages:

• This might be a straightforward and easy-to-implement algorithm

• Building a model, tuning several parameters or creating extra assumptions aren't needed

• This could be a versatile algorithm, having ability to be used in regression, classification and even search issues.

Disadvantages:

• The algorithm becomes considerably slower because the variety of examples and/or predictors/independent variables will increase.

The disadvantage that KNN provides makes it an impractical alternative to be used wherever predictions have to be compelled to be created earlier. However, providing one has enough computational power at their disposal, then KNN can be used in problems where similar items have to be identified.

B. SVM

Advantages:

• Effective in high dimensional spaces

• If the quantity of dimensions is larger than the quantity of samples, the algorithm would be capable to perform higher

• It is memory efficient

Disadvantages:

• Performance is affected when big data sets are used because the needed training time is a lot.

• Performance is additionally affected once the data set has an excessive amount of noise

• SVM doesn't directly give likelihood estimates, rather a computationally intensive five-fold cross- validation is needed.

2.1System Architecture

Our Project vision is to provide College a Recruiter recommendation system for students. In this project, we use machine learning techniques to predict the placement status of students based on a dataset. The parameters in the dataset which are considered for the prediction are CGPA and a Technical test. The technical test will consist of 20-30 random technical question based on the technical interest of the student. Students will get 10 to 15 technical questions through which we will determine whether the candidate have Beginner, Intermediate or Advanced level of skill. The results will be Gathered and prepared and will be fed to recommendation system. The system will then recommend the student the eligible company so that the student can directly decide whether to apply or not. The placement prediction can be done by machine learning using Logical Regression, Random Forest, KNN, SVM

Hardware and Software Specifications

The experiment setup is carried out on a computer system which has the different hardware and software specifications.

Hardware Details

Processor	2 GHz Intel
HDD	180 GB
RAM	2 GB

Software Details

Operating System	XP Professional
Programming Language	Python, JavaScript
Database	MongoDB, Firebase

Summary:

Maximum work goes manually in the present placement system which makes it take time to avail changes. This includes main problems like searching for the data of students and sorting them along with it. Also, updating student data is a cumbersome job and does not have a method to notify the student in time which makes the management of the placements very difficult. In the proposed system, all of these problems become automated. The registration of the student for an upcoming placement, the addition of a new user, notifying students, sharing information, the privacy of the student, etc. is all met. The admin validates the information and gives the student list based on the criteria required which otherwise would have been very difficult to manage.

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REFERENCES:

[1] Recommendation System using Content Filtering, Ms. Nishigandha Karbhari, Prof. Asmita Deshmukh,

Dr. Vinayak D. Shinde

[2] Campus Placement Prediction Using Supervised Machine Learning Techniques, Pothuganti Manvitha,

Neelam Swaroopa

[3] Data Mining Classification and analytical model of prediction for Job Placements using Fuzzy Logic,

S.Venkatachalam

[4] Placement Prediction using Various Machine Learning Models and their Efficiency Comparison, Irene Treesa Jose, Joel James, Mereen Thomas Vadakkel

[5] Campus Placement Predictive Analysis using Machine Learning, Nikhil Kumar, Ajay Shanker Singh, Thirunavukkarasu K.