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CAMPUS PLACEMENT PREDICTION AND ANALYSIS USING MACHINE LEARNING ALGORITHMS

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ABSTRACT

Placement of students is one of the most important objective of an educational institution. Reputation and yearly admissions of an institution invariably depend on the placements it provides it students with. That is why all the institutions, arduously, strive to strengthen their placement department so as to improve their institution on a whole. Any assistance in this particular area will have a positive impact on an institution's ability to place its students. This will always be helpful to both the students, as well as the institution. In this study, the objective is to analyse previous year's student's data and use it to predict the placement chance of the current students. This model is proposed with an algorithm to predict the same. Data pertaining to the study were collected form the same institution for which the placement prediction is done and also suitable data pre-processing methods were applied. This proposed model is also compared with other traditional classification algorithms such as Decision tree and Random forest with respect to accuracy, precision and recall. From the results obtained it is found that the proposed algorithm performs significantly better in comparison with the other algorithms mentioned.

1.INTRODUCTION

When it comes to higher education, placements are paramount. It is the students' location on campus that reflects the college's

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fundamental success. Looking at the college's acceptance rate is how every student decides where to attend university. Accordingly, this strategy is all about forecasting and analyzing college placement needs, which aids in college construction and assists students with their placements. Utilizing classification algorithms like Decision Tree and Random Forest, the Placement Prediction system end eavors to forecast the probability of an undergrad understudy being set in a laid out business. The achievement or disappointment of an understudy incampus recruiting is the primary goal of this strategy. Student records, including grades, total percentage, and any outstanding balances or credits, are used for this purpose. Utilizing understudy information from earlier years, the calculations are run.

2.LITERATURE SURVEY

One of the primary goals of every school should be to place its pupils. The placement services a school offers its pupils are directly related to its reputation and the number of students it admits each year. That is why every school works so hard to develop their placement department for the benefit of the whole institution. An institution's capacity to put its understudies will be decidedly impacted by any help in this particular region. The school and its students will both advantage from this over the long haul. Anticipating the arrangement chances of momentum understudies by dissecting information from previous years is the objective of this exploration. A calculation is proposed to make forecasts utilizing this model. The review's information came from a similar area as the position expectation, and the right information pre-handling techniques were used. We also compare the accuracy, precision, and recall of our suggested model to those of other well-established classification techniques, such Choice tree and Irregular woods. Results show that contrasted with the past techniques expressed, the proposed approach performs much better.

Campus placement is the process of actively seeking out, evaluating, and ultimately employing promising young individuals for entry-level and internship positions.

The placements offered to students by the institution have a direct impact on the institute's reputation and annual admissions. So, in order to develop the company as a

whole, most institutions work hard to strengthen their placement department. The institute's ability to put its students may be decidedly impacted by any assistance around here. The reason for this examination is to figure out how likely it is that ongoing understudies will be put nearby by breaking down earlier year's understudy arrangement information. Calculated Relapse, Choice Tree, K Closest Neighbors, and Irregular Woodland are the four machinelearning algorithms that we have tested for this purpose.

3. EXISTING SYSTEM

In existing system placements are predicted by using classification algorithms such as Decision tree algorithm and SVM algorithms etc   But in this system they cannot predict the placements by using attribute selection such as students credits ,backlogs ,Interships etc….

The main disadvantage of the existing system is The system is not implemented each Attribute selection which is not relevant to each other.The system is not implemented Cleaning missing values.

The college placement dataset utilized by Ajay Shiv Sharma, Swaraj Prince, Shubham Kapoor, and Keshav Kumar was accurately predicted 83.33% of the time using the logistic regression approach [2]. On the college placement dataset, Jai Ruby and Dr. K. David used ID3, J48, REP Tree, NB Tree, MLP, and Decision Table Classification methods. Among them, ID3 performed quite well in terms of prediction accuracy, reaching 82.1% [3]. Using the C4.5 classification approach, Ankita A Nichat and Dr. Anjali B. Raut accomplished an exactness pace of 80% on the arrangement dataset that was procured from their school.

3.1 PROPOED SYSTEM:

Using classification algorithms like Decision Tree and Random Forest, the Situation Forecast framework gauges the probability of an undergrad understudy being put by a firm. The model's essential objective is to predict whether an understudy will be put during grounds selecting. Data like an understudy's general rate, excesses, and credits are considered for this. Understudies' informationfrom prior years is used to train the algorithms.

4. OUTPUT SCREENS

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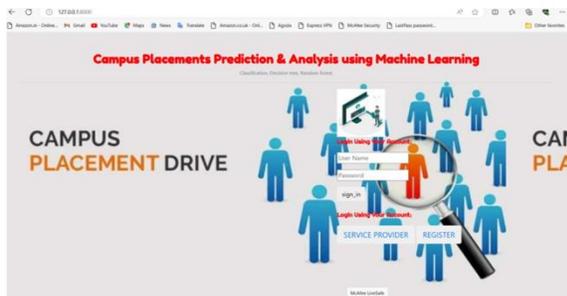
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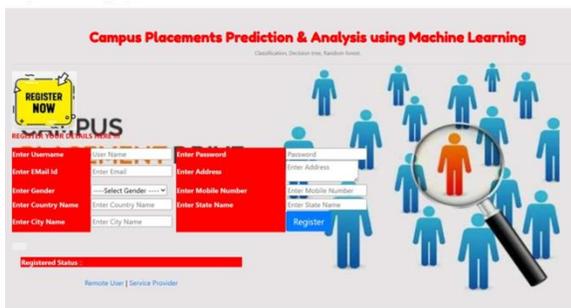
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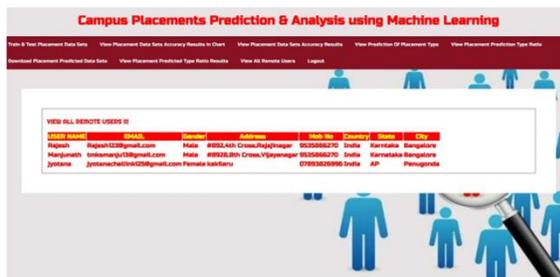
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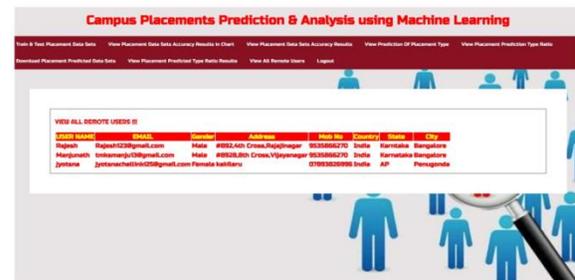
5. CONCLUSION

Viewed from both the institution's and the students' points of view, the campus placement activity is quite important. Accordingly, a piece of work has been evaluated and forecasted using the Decision Tree and Random Forest algorithms for classification, with the aim of enhancing the student's performance. A series of algorithms are applied to the data set and characteristics that were used to construct the model. Analysis yields an accuracy of 84% for the Decision Tree and 86% for the Random Forest. Therefore, the aforementioned analysis and prediction suggest that the Random Forest algorithm would be the most suitable for predicting the placement outcomes.

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