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Student Placement Prediction System

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ABSTRACT

Every educational institution relies on campus placement to assist students in achieving their objectives. Machine learning classification can be used to retrieve associated data from huge student datasets. In this examination, a prescient model is fostered that can conjecture the positions for which students are eligible based on their academic and extracurricular achievements in the past. The model will also propose additional abilities that will be necessary for future recruitment, which will aid students in their preparation for placement. It also gives continuous trial results and discoveries, as well as execution estimations expected for model approval, aiding the accomplishment of the achievement of result based training at instructive foundations, which is agreed first concern in the current context.

Keywords: Machine Learning, Classification, Result based instruction, Placement Prediction

I. INTRODUCTION

An Outcome Based Education educational program begins with an unmistakable picture of what understudies ought to accomplish as per the educational program planned, coaching strategies embraced and graduate credits to be met. The last fulfillment accomplished will eventually get that learning done and course results are achieved. Right now, Result based instruction is being embraced at a faster speed at planning establishments all over India. Result based instruction which is a student centered direction structure, revolves around student execution through checked results as data procured, capacities ingrained and mindsets saw. The establishment is given the decision to pick the appraisal procedure for competitors during the program. Notwithstanding the way that the get-together of OBE at arranging affiliations would be an exceptional commencement for significant level preparation in India, yet the confirmed achievement lies in the persuading execution and cautious grant systems to guarantee that quality arranging is continued. In this manner Result based bearing will help in filling openings in scholastics to work with industry norms. In instructive organizations, the understudy's position

assumes a critical part in up-lifting institutional norms. Understudy's scholarly presentation and their scholastic abilities are emphatically affected by arrangements. To accomplish excellent positions, understudies ought to be adjusted with characteristics like critical thinking abilities, genuineness and difficult work, collaboration, and performing multiple tasks. It will be a shelter to all understudies in the event that these characteristics are gathered ahead of time before the initiations of position drives. Taking into account model can be implemented which could foresee the result of the understudy's conditions choice, considering their previous display in scholastics in this way conveying the above plan to this present reality. At this point, a colossal proportion of data is requested and taken care of in educational establishments associated with student selection, progress reports, evaluation results and some more. A huge methodology used in Machine learning is assumption showing, in which a model could be made which comprehends from one express piece of the information.

II. RELATED WORK

Today's Artificial Intelligence (AI) has far surpassed the hype of blockchain and quantum computing. This is due to the fact that huge computing resources are easily available to the common man. The developers now take advantage of this in creating new Machine Learning models and to re-train the existing models for better performance and results. The easy availability of High Performance Computing (HPC) has resulted in a sudden increased demand for IT professionals having Machine Learning skills. [1] "Data Mining Approach for Predicting Student and Institution's Placement Percentage", Professor. Ashok M Assistant Professor Apoorva A, 2016 International Conference on Computational Systems and Information Systems for Sustainable Solutions In this paper author has used the data mining technique for the prediction of the student's placement. For the prediction of student's placement author has divided the data into the two segments, first segment is the training segment which is historic data of passed out students. Another segment consists of current data of students, based on the historic data author has designed the algorithm for calculating the placement chances. Author has used the various data mining algorithms such as decision tree, Naïve Bayes, neural network and the prosed algorithm were applied, and decision are made with the help of confusion matrix. [2] "Student Placement Analyzer: A Recommendation System Using Machine Learning", Senthil Kumar Thangavel , Divya Bharathi P, Abijith Sankar, International Conference on Advanced Computing and Communication Systems (ICACCS -2017), Jan. 06 - 07, 2017, Coimbatore, INDIA In this paper author is concern about the challenges face by any institute regarding the placement. The placement prediction is very complex when the number of the entities increases in any institute. With the help of machine learning this complex problem of prediction can be easily solved. In this paper all the academic record of student is taken into consideration. Various classification and data making algorithms are used such as Naïve Bayes, Decision Tree, SVM and Regressions. After the prediction of the students can be placed in of the given category that is Core Company, dream company or support services. [3] "A Placement Prediction System Using KNearest Neighbors Classifier", Animesh Giri, M Vignesh V Bhagavath, Bysani Pruthvi, Naini Dubey, Second International Conference on Cognitive Computing and Information Processing (CCIP), 2016 The placement prediction system predicts the probability of students getting placed in various companies by applying K-Nearest Neighbors classification. The result obtained is also compared with the results obtained from other machine learning models like Logistic Regression and SVM. The academic history of student along with their skill sets like programming skills, communication skills, analytical skills and team work is considered which is tested by companies

during recruitment process. Data of past two batches are taken for this system.

III. PROPOSED SYSTEM

In proposed system, we are not considering the placement of students just by their academic performances because some students may be good at aptitude, technical and communication skills due to their low score in their academic that may tend to be their drawback. For predicting the placement of a Student needs parameters like cgpa, logical and technical skills Academic performances may be important but the model is design to predict the placements based on the parameters of the students and segregating the total students placed data according to their streams to find out that in which stream placements are more. Using this model we can predict the next year admission trends.

ADVANTAGES:

1) Proposed model can predict the placement more accurately because of we are using student's technical skills, communication skills, and also the internships done by the students in this predictive model.

2) We can use this model to predict the next year admission trends.

KNN Algorithm: KNN stands for K-nearest neighbor, it's one of the supervised learning algorithm mostly used for classification of data on the basis how its neighbor are classified. KNN stores all available cases and classifies new cases based on a similarity measure. K in KNN is a parameter that refers to the number of the nearest neighbors to include in the majority voting process. How does KNN work?

The K-NN working can be explained on the basis of the below algorithm:

Step-1: Select the number K of the neighbors

Step-2: Calculate the Euclidean distance of K number of neighbors

Step-3: Take the K nearest neighbors as per the calculated Euclidean distance.

Step-4: Among these k neighbors, count the number of the data points in each category.

Step-5: Assign the new data points to that category for which the number of the neighbor is maximum.

Step-6: Our model is ready.

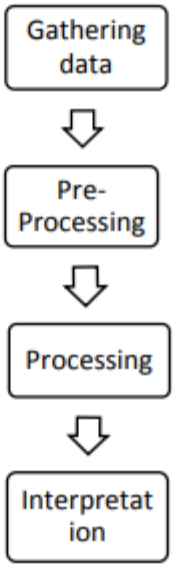

Fig 1: Flow Chart of process

IV. CONCLUSION AND FUTURE SCOPE

Student Placement Predictor is a system which predicts student placement status using machine learning techniques. Many research papers are there related to educational sector, all these papers mainly concentrate on student performance predictions. All these predictions help the institute to improvise the student performance and can come up with 100% results. Many of the previous research papers concentrate on a less number of parameters such as CGPA and Arrears for placement status prediction which leads to les accurate results, but proposed work contains many educational parameters to predict placement status which will be more accurate. The future enhancements of the project are to focus on to add some more parameters to predict more efficient placement status. We can also enhance the project by predicting some solutions or suggestions for the output generated by system.

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