LITERATURE REVIEW

1. Prediction of the admission lines of college entrance examination based on machine learning

Authors: Zhenru Wang, Yijie Shi

Algorithm: Adaboost algorithm is used to study and forecast, which belongs to ensemble learning.

Published in: 2016 2nd IEEE International Conference on Computer and Communications (ICCC)

Abstract: Accurate prediction to college entrance examination(CEE) results is very important for the candidates to fill in the application and the relevant analysis of the CEE. At present, the prediction of CEE scores is based on data statistics, probability model and some weighted combination models. Since generating the model for predicting college admission lines uses too little reference factor, and the error is relatively large, so the reference value is very small. In this paper, machine learning methods are used to carry out the college admission lines of research and prediction. Specially, in this paper Adaboost algorithm is used to study and forecast, which belongs to ensemble learning. Finally, the result of this model is given, which is better than the current prediction method.

2. Engineering & Technology Admission Analysis and Prediction

Authors: Sachin Bhimrao Bhoite, Ajit More

Algorithm: Logistic Regression, K Nearest Neighbours', Decision Tree Classifier, Random Forest Classifier, Naive Bayes & Support Vector Machine Supervised Machine Learning Algorithms. Out all six models Decision Tree classifier & Random Forest always give great accuracy.

Published in: May 2020

Abstract: A Great career without a Great Education is just a DREAM. While we talk about career – a person's degree, specialization, College/University and the knowledge that he possesses – are the key factors. In India the educational pattern is 10+2+3+2 or 10+2+4+2 or 10+2+5.5 & career related decisions are discussed after 10th standard and mostly concluded after 12th. As soon as a student completes his/her Higher Secondary Schooling, the first goal of any student is to get into an appropriate College/University for appropriate course/program so that he can get a better education, guidance & placement for his future. To build predictive model we used Logistic Regression, K Nearest Neighbors', Decision Tree Classifier, Random Forest Classifier, Naive Bayes & Support Vector Machine classifiers then compare the results of cross-validation with & without feature engineering and also compare the

probabilities of getting admission to a college. The performance of various classifiers is described in this paper. It is found that Random Forest & Decision tree classifiers give better accuracy.

3. A University Admission Prediction System using Stacked Ensemble Learning

Author: Sashank Sridhar, Siddartha Mootha, Santosh Kolagati

Algorithm: The proposed model takes into consideration various factors related to the student including their research experience, industry experience etc. The system proposed has been evaluated against various other machine learning algorithms including other deep learning methods. It is observed that the proposed model easily outperforms all other models and provides a very high accuracy.

Published in: 2020 Advanced Computing and Communication Technologies for High Performance Applications (ACCTHPA)

Abstract: For an aspiring graduate student, shortlisting the universities to apply to is a difficult problem. Since an application is extremely dynamic, students often tend to wonder if their profile matches the requirement of a certain university. Moreover, the

cost of applying to a university is extremely high making it critical that students shortlist universities based on their profile. A university admission prediction system is quite useful for students to determine their chances of acceptance to a specific university. The system could make use of data related to previous applicants to various universities and their admit or reject status. Earlier models of such prediction systems suffer from several drawbacks such as not considering important parameters like GRE (Graduate Record Exam) scores or research experience. Further, the accuracy reported by earlier models is also not sufficiently high. In this paper, a stacked ensemble model that predicts the chances of admit of a student to a particular university has been proposed. The proposed model takes into consideration various factors related to the student including their research experience, industry experience etc. Further, the system proposed has been evaluated against various other machine learning algorithms including other deep learning methods. It is observed that the proposed model easily outperforms all other models and provides a very high accuracy.

4. Research on Prediction of College Students' Performance Based on Support Vector Machine

Authors: Peng Wang , Yinshan Jia

Algorithm: Support vector machine was used to establish a college course performance prediction model, and cross validation methods were used to obtain the best parameters and a reliable and stable model.

Published in: April 2018

Abstract: 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. The main advantage of the project is the computerization of the entrance seat allotment process. Administrator has the power for the allotment. Admin can add the allotted seats into a file and the details are saved into the system. The total time for the entrance allotment becomes lower and the allotment process becomes faster. It helps students to make right decisions for choosing their college. In which students can register with their personal as well as marks details to prediction the admission in colleges and the administrator can allot the seats for the students. Administrator can add the college details and the batch details. Using this Application, the entrance seat allotment became easier and can be implemented using system. The main advantage of the

project is the computerization of the entrance seat allotment process.