UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

Domain: Machine Learning(Applied Data Science)

Team ID: PNT2022TMID00432

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Paper 1:

COLLEGE ADMISSION PREDICTOR

Annam Mallikharjuna Roa, A.Satya Raghava,J.Buvanambigai, K.Sathish

Journal of Network Communications and Emerging Technologies (JNCET),Volume 8, Issue 4, April(2018)

In this project, they had automated the process carried out in the organization with improved performance and realize the vision of paperless admission. They implemented by managing large number of student details and managing all details of student who registered for the course. The students only have to enter their marks of XII, AIEEE etc. With this application, the students can obtain the list of colleges branch wise and course wise. System design focuses on the detailed implementation of the feasible system .It emphasis on translating design specifications to performance specification. System design has two phases of development logical and physical design. During logical design phase the analyst describes inputs (sources), outputs(destinations), databases (data scores) and procedures (data flows) all in a format that meets the uses requirements. The analyst also specifies the user needs and at a level that virtually determines the information flow into and out of the system and the data resources. Here the logical design is done through data flow diagrams and database design. The physical design is followed by physical design or coding. Physical design produces the working system by defining the design specifications, which tell the programmers exactly what the candidate system must do. The programmers write the necessary programs that accept input from the user, perform necessary processing on accepted data through call and produce the required report on a hard copy or display it on the screen.

Paper 2:

University Admissions Predictor-UNIPREDICT

Aanchal Thakur (18070122001),TYCS

Symbiosis Institute of Technology, Pune, November 2020

Their main aim is to design a web application that allows users to enter their academic data and get predictions of their chances of admissions in the university tier of their choosing. It also provides them answers to the most common FAQ's that arise when thinking of admissions abroad for Post Graduate studies. It also provides an analysis based on the data set used that shows how the different parameters affect chances of admissions. A Database will also be implemented for the system so that students can save their data and review and edit it as they progress with the most recent predictions being saved with their profile. Issues of web security other than password protection within the website are not part of this project. Their system is built on a limited data set, this could affect the accuracy of the predictions as a whole. The system cannot guarantee that our predictions will be a 100% guarantee of admissions because a lot other factors such as the Personal Interview also plays a major role in the admissions procedure. Other factors such as changes in policies by the university or by the country can also affect chances of admissions in a way that is beyond the scope of this project. Admissions also depend on the individual university's policy regarding the intake of foreign students and is not modelled by our system. Future work in the project could include weighing in the features that have been ignored as of yet like percentage seats for Foreign Students. Other criterions like Co-curricular achievements, Leadership positions held, job experience etc can also be included as metrics for the model.

Paper 3:

College Admission Prediction using Ensemble Machine Learning Models

Vandit Manish Jain, Rihaan Satia

International Research Journal of Engineering and Technology(IRJET),Dec 2021

Their application that tells admissions committees who you are, what your academic and professional interests are, and how you'll add value to the graduate program you're applying to), Co-curricular activities and Research papers as well (research papers from journals that are not well known or have a high percentage of plagiarism are not taken into consideration for this case). When a person has completed their undergraduate degree and wants to pursue a Postgraduate degree in a field of their choice, more often than not, it is very confusing for the person to figure out what colleges they should apply to with the scores that they have obtained in GRE and TOEFL, along with their GPA at the time of their graduation. Many candidates may apply to colleges that do not fall under their score requirements and hence waste a lot of time. Applying to many colleges with scores also increases the cost. In this project, a person can enter their scores in the respective fields provided. The system then processes the data entered and produces an output of the list of colleges that a person could get into, with their scores. This is relatively quick and helps conserve time and money. Inorder to achieve this we have proposed a novel method utilising Machine Learning algorithms. To maximize the accuracy of our model, we have taken into consideration not one; but several machine learning algorithms. These algorithms include Neural Networks, Linear Regression, Decision Tree and Random Forest. More about these algorithms will be covered in the Algorithms section of this paper. These Algorithms are then compared and the algorithm which has the best key performance indicators will be used to develop the Prediction System. We also look forward to incorporate clustering of universities based on a profile and then classifying them as less likely, highly likely acceptance etc;

Paper 4:

Predicting Undergraduate Admission: A Case Study in Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Bangladesh

Md. Protikuzzaman, Mrinal Kanti Baowaly, Maloy Kumar Devnath, Bikash Chandra Singh

International Journal of Advanced Computer Science and Applications,(IJACSA),Vol. 11, No.12, 2020

The University admission tests find the applicant's ability to admit to the desired university. Nowadays, there is a huge competition in the university admission tests. The failure in the admission tests makes an examinee depressed. This paper proposes a method that predicts undergraduate admission in universities. It can help students to improve their preparation to get a chance at their desired university. Many factors are responsible for the failure or success in an admission test. Educational data mining helps us to analyze and extract information from these factors. Here, the authors apply three machine learning algorithms XGBoost, LightGBM, and GBM on a collected dataset to estimate the probability of getting admission to the university after attending or before attending the admission test. They also evaluate and compare the performance levels of these three algorithms based on two different evaluation metrics –accuracy and F1 score. Furthermore, the authors explore the important factors which influence predicting undergraduate admission.

Paper 5:

Predicting Student University admission using Linear Regression

Sharan Kumar Paratala Rajagopal

European Journal of Computer Science and Information Technology Vol.8, No.3, pp.46-56, June 2020

In this project, raw data will be extracted into .csv format from the reference and RStudio import wizard will be used to import data set from .csv file and will be performing the Logistic regression on the data set. Logistic regression is used to model the relationship between a binary response variable and a set of predictor variables. It's used to estimate the probability of the response according to the various continuous and categorical predictors. The estimated probabilities can then be used to classify an unknown response into one of the two outcome levels, given a set of predictors. First will be looking for associations between your predictors, such as number of GRE, TOFEL, SOP, LOA and the binary response Chance of Admit, to see which variables should be considered for model inclusion. Then will use logistic regression to determine which students will have high probability of getting admission to Master's program.

Paper 6:

Prediction for University Admission using Machine Learning

Chithra Apoorva D A, Malepati ChanduNath, Peta Rohith, Bindu Shree.S, Swaroop.S

International Journal of Recent Technology and Engineering (IJRTE) ,Volume-8 Issue-6, March 2020

In this project, they collected the data from multiple sources like yocket and also consider all the factors including which will play a tiny role in student admission process. And these data are cleaned, that is removing the noise in the data and filled the missing values or extreme values and finalising the attributes/factors which will have crucial importance in student admission process. By inspecting feature values that help identify what needs to be done to clean or pre-process until you see the range or distribution of values typical of each attribute. The missing or noisy data, or anomalies such as the incorrect data form used for a column, incorrect measuring units for a particular column, or that there are not enough examples of a specific class. They got to know certain features that are more affected by the visualization (or) analysis or the use of feature importance method in decision tree. Several ML models are developed using various

machine learning algorithms for admission to a particular university and the user interface has to be developed to access those models. The algorithms include K- Nearest Neighbour and Linear Regression, Ridge Regression, Random Forest are used to predict students ' likelihood of university admission based on their profile. Then these developed models are evaluated according to their accuracy scores. Once the model is finalised that model will be merged with node red for final deployment.