LITERATURE SURVEY

DATE	29 August 2022
TEAM ID	PNT2022TMID32434
PROJECT NAME	University Admit Eligibility Prediction
MAXIMUM MARKS	2 Marks

NO: 1

TITLE: Prediction for University Admission using Machine Learning

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

PUBLISHING YEAR: 2021

CONTENT:

This section includes the literature review of previous research on the assessment of student enrolment opportunities in universities. Numerous programs and studies have been carried out on topics relating to university admission used many machine learning models which helps the students in the admission process to their desired universities. Previous research done in this area used Naive Bayes algorithm which will evaluate the success probability of student application into a respective university but the main drawback is they didn't consider all the factors which will contribute in the student admission process like TOEFL/IELTS, SOP, LOR and under graduate score.Bayesian Networks Algorithm have been used to create a decision support network for evaluating the application submitted by foreign students of the university. This model was developed to forecast the progress of prospective students by comparing the score of students currently studying at

university. The model thus predicted whether the aspiring student should be admitted to university on the basis of various scores of students. Since the comparisons are made only with students who got admission into the universities but not with students who got their admission rejected so this method will not be that much accurate.

NO: 2

TITLE: A Machine Learning Approach for Graduate Admission Prediction

AUTHORS: Amal AlGhamdi , Hanadi AlMshjary , Amal Barsheed

PUBLISHING YEAR: 2019

CONTENT:

Many aspiring graduate students want to complete their studies, prepare for the next stage, which is a master's degree. Many of them may wonder about the basic requirements for admission to universities, and about the universities where they can be admitted based on their requirement [1]. The literature contains several studies that perform statistical analyses on admissions decisions. For example authors in , presents an expert system, called PASS, in which Logistic Regression is used to predict the potential of high school students in Greece to pass the national exam for entering higher education institutes. The authors in used predictive modeling to assess admission policies and standards based on features like GPA score, ACT score, residency race, etc. Limitations of this research include not taking into consideration other important factors such as past work experience, technical papers of the students, etc These researchers' authors in [4] have used data mining and ML techniques to analyze the current scenario of admission by predicting the enrolment behavior of students. They have used the Apriori technique to analyze the behavior of students who are seeking admission to a

particular college. They have also used the Naïve Bayes algorithm which will help students to choose the course and help them in the admission procedure. In their project, they were conducting a test for students who were seeking admissions and then based on their performance, they were suggesting students a course branch using Naïve Bayes Algorithm. But human intervention was required to make the final decision on status.

NO: 3

TITLE: A Comparative Study on University Admission Predictions Using Machine Learning Techniques

AUTHORS: Kasturi Mojesh, Lakshmi Madhavi Devarapalli, Pabbidi Naga Suba Reddy, Srigiri Rajesh, Ankita

PUBLISHING YEAR: 2019

CONTENT:

There has been many papers on the topic of admission predictions but they all use varying methods using different machine learning approaches.Few of them uses some format of UCLA dataset which has the test scores which are more suitable for US universities admission for the admission prediction for training the data model, others use the academic merits, background and college admission criteria etc to achieve the prediction. Lets have a look at various research works used the dataset form UCLA database and during their research the data had been downloaded 2000+times and the dataset had parameters which were significant as they were used by the admission committees for granting admission. The dataset included GRE, TOEFL, graduate GPA, Statement of Purpose (SOP) and Letter of Recommendation (LOR).Then the scrapped data is cleaned and formatted to suit the needs of an Indian student. After Students want to pursue their graduation from best universities and colleges with good rankings worldwide. For that many

choose to study abroad and thus they take a slew of above mentioned tests that makes it easier for them to apply and get selected for admissions in their preferred institutions. So the graduate program takes immense preparation and it is one of the exhaustive tasks there is to apply and get selected for one's preferred institutions . Hence, to lessen the troubles faced by the students and make their lives easier many efforts has been put through various researchers using ML techniques using various regression models. Here in this paper, we will be reviewing all those works. We will also compare the methods which has been used by other authors to render a model and try to find out which methodology is the most efficient and by how much using the data provided by them. As most of our students try to attain their higher education abroad and most likely from USA, we will be using the data set used in the universities of USA such as GRE,GPA, SOP, LOR for the admission predictions which are readily available in the UCLA graduate database for admissions. An efficient university admission predictor will be very helpful as it will narrow down the options available to a student for his/her application to any university as well as give them a certain idea of the chances of their admission in particular university thus eliminating the need to waste time and money on approaching different consultancies and at the same time helps the students to be more informed about the situation.

REFERENCES:

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3. Admissions Requirements," Berkeley Graduate Division, [Online]. Available https://grad.berkeley.edu/admissions/requirements/. [Accessed 09 november 2019.

4. M. S. Acharya, A. Armaan, and A. S. Antony, “A Comparison of Regression Models of Graduate Admissions,”Kaggle, 2018.