University Admit Eligibility Prediction

LITERATURE SURVEY:

PAPER 1: GRADUATION ADMITION PREDICTION USING MACHINE LEARNING

Publish: December 2020

Author: Ali Bou Nassif, Asharf M Elnagar, Ismail Shahin

Journal name: International journal of computers and communications/doi: 10.46300/91013.2020.14.13

Summary:

The machine learning models were performed to predict the opportunity of a student to get admitted to a master's program. The machine learning models included are multiple linear regression, k-nearest neighbour, random forest, and Multilayer Perceptron. Experiments show that the Multilayer Perceptron model surpasses other models. As for the future work, more models can be conducted on more dataset learn the model that gives the best performance.

PAPER 2: Recommender system for predicting students admission to a graduate program using machine learning algorithms

Publish: November 2020

Author: Rim marah, Aimad qazdar, Insasaf ei guabassi

Journal name: international journal of online and biomedical engineering/https://doi.org/10.3991/ijoe.v17i02.20049

Summary:

Machine Learning allows us to reduce the human error probability by providing very strong recommendations, predictions, and decisions based on only the input data. For that reason, it has become one of the most important and common aspects of the digital world. Different application areas adapt and adopt Machine Learning techniques in their systems such as medicine, finance, marketing, business intelligence, health care, etc. In our case, we aim to design a recommender system based on Machine Learning techniques in the field of Education. Thus, the contributions were threefold: The first was to apply several Supervised Machine Learning algorithms.

The second purpose wasto compare and evaluate algorithms used to create a predictive model based on various evaluation metrics. The last purpose wasto determine the most important parameters that influence the chance of admission. The experimental results showed that the Random Forest Regression is the most suitable Machine Learning algorithm for predicting university admission. Also, the Cumulative Grade Point Average is the most important parameter that influences the chance of ad-mission.

PAPER 3: PREDICTIVE MODELS OF STUDENT COLLEGE COMMITMENT DECISIONS USING MACHINE LEARNING

Publish: May 2019

Author: Kanadpriya Basu, Treena Basu, Ron Buckmire, and Nishu Lal

Journal name: International research journal of engineering and technology

Summary:

Every year, academic institutions invest considerable effort and substantial resources to influence, predict and understand the decision-making choices of applicants who have been offered admission. In this study, we applied several supervised machine learning techniques to four years of data on 11,001 students, each with 35 associated features, admitted to a small liberal arts college in California to predict student college commitment decisions. By treating the question of whether a student offered admission will accept it as a binary classification problem, we implemented a number of different classifiers and then evaluated the performance of these algorithms using the metrics of accuracy, precision, recall, F-measure and area under the receiver operator curve. The results from this study indicate that the logistic regression classifier performed best in modelling the student college commitment decision problem, i.e., predicting whether a student will accept an admission offer, with an AUC score of 79.6%. The significance of this research is that it demonstrates that many institutions could use machine learning algorithms to improve the accuracy of their estimates of entering class sizes, thus allowing more optimal allocation of resources and better control over net tuition revenue.

PAPER 4: GRADUATE ADMISSION PREDICTION USING MACHINE LEARNING TECHNIQUES

Publish: July 2021

Author: K. Jeevan Ratnakar, G. Koteswara Rao, B. Durga Prasanth Kumar, G.Prithvi, D.Venkata Sai Eswar

Journal name: International Journal of Advanced Research in Science, Engineering and Technology

Summary:

In India every year lacks of students getting the graduation degree and willing to join post-graduation in other countries. Newly graduate students usually are not knowledgeable of the requirements and the procedures of the postgraduate admission and might spent a considerable amount of money to get advice from consultancy organizations to help them identify their admission chances. Human consultant and calculations might be bias and inaccurate. This paper helps on predicting the eligibility of Indian students getting admission in best university based on their Test attributes like GRE, TOEFL, LOR, CGPA etc. according to their scores the possibilities of chance of admit is calculated.

PAPER 5: COLLEGE ADMISSION PREDICTION USING ENSEMBLE MACHINE LEARNING MODELS

Publish: December 2021

Author: Vandit Manish Jain, Rihaan Satia

Journal name: International Research Journal of Engineering and Technology

Summary:

This paper aims to build a model that can help students to pick the right universities based on their profiles. We can judge across a wide variety of domains that include MS (international), M.Tech (India) and MBA (India and International). For the accurate predictions we plan on training a machine learning model in order to provide results. The dataset contains information on the student profile and the university details with a field detailing if the admission was positive or not. Various algorithms have been used i.e. Ensemble Machine Learning and the predictions have been compared using key performance indicators (KPIs). The model performing the best is then used to evaluate the dependent variable i.e. The chances of admit to a university. The chances of admit variable is a variable ranging from 0 to 1 which equates to the predicted probability of successful acceptance to a university. We also aim to create a portal which filters and then provides a list of universities that fall into the profile's acceptance range.

PAPER 6: PREDICTING STUDENT UNIVERSITY ADMISSION USING LOGISTIC REGRESSION

Publish: 2020

Author: Sharan Kumar Paratala Rajagopal

Journal name: European Journal of Computer Science and Information Technology

Summary:

The primary purpose is to discuss the prediction of student admission to university based on numerous factors and using logistic regression. Many prospective students apply for Master's programs. The admission decision depends on criteria within the particular college or degree program. The independent variables in this study will be measured statistically to predict graduate school admission. Exploration and data analysis, if successful, would allow predictive models to allow better prioritization of the applicants screening process to Master's degree programme which in turn provides the admission to the right candidates.

PAPER 7: PREDICTION FOR UNIVERSITY ADMISSION USING MACHINE LEARNING

Publish: 2020

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

Journal name: International Journal of Recent Technology and Engineering

Summary:

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.

PAPER 8: PREDICTION FOR UNIVERSITY ADMISSION USING MACHINE LEARNING

Publish: 2020

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

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PAPER 9: COLLEGE ADMISSION PREDICTOR

Publish: 2018

Author: Annam Mallikharjuna Roa, Nagineni Dharani, A. Satya Raghava, J. Buvanambigai , K. Sathish

Journal name: Journal of Network Communications and Emerging Technologies (JNCET)

Summary:

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. 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 became lesser and the allotment process became faster. It helps student for making decision for choosing a right college.

PAPER 10: **AN AUTOMATED PREDICTION MODEL FOR COLLEGE ADMISSION SYSTEM**

Publish: 2021

Author: Dr. Arunakumari B. N , Vishnu Sastry H K, Sheetal Neeraj , Shashidhar R

Journal name: Ilkogretim

Summary:

At present, many students make mistakes in their preference list of colleges because of various reasons like inaccurate analysis of colleges, lack of knowledge, and apprehensive prediction. Later, they end up regretting the same after allotment. Our application addresses this issue of the student admission community. The application uses data mining and data analysis techniques. Rank, category, preferred branches, preferred district, and preferred colleges are taken as input and the preference list, on thorough analysis of the last five years' cut-off data is generated. In this paper, an attempt has been made to develop an automated web application prediction model for a college admission system which can be used to make a wise choice of college before allotment.

PAPER 11: **STUDENT ADMISSION PREDICTOR**

Publish: 2017

Author: Himanshu Sonawane

Journal name: National College of Ireland

Summary:

In today's era we see a lot of students pursuing their education away from their home countries. The main country targeted by these international students is The United States of America. Majority of the international students in the United States of America are from India and China. In the past decade the number of Indian students pursuing post graduate education from the USA has rapidly increased. With the increase in the number of international students studying in the USA, each applicant has to face a tough competition to get admission in their dream university. Generally as the students don't have much idea about the procedures, requirements and details of the universities in the USA they seek help from the education consultancy firms to help them successfully secure admission in the universities which are best suitable for their profile, for this they have to invest huge amount of money as consultancy fees. Apart from these the education consultancy firms there are few websites and blogs that guide the students on the admission procedures. The drawback of the currently available resources is that they are very limited and also they are not truly dependable taking into consideration of their accuracy and reliability. The aim of this research is to develop a system using machine learning algorithm's, we will name it as Student Admission Predictor (SAP). It will help the students to identify the chances of their application to an university being accepted. Also it will help them in identifying the universities which are best suitable for their profile and also provide them with the details of those universities. A simple user interface will be developed for the users to access the SAP system.

PAPER 12 : **PREDICTING UNDERGRADUATE ADMISSION**

Publish: 2020

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

Journal name: International Journal of Advanced Computer Science and Applications

Summary:

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.