

Literature survey

University Admit Eligibility Predictor

Team ID : PNT2022TMID47442

Team Leader : Sathiya Jothi S - [910019104039](#)

Team Members : Gayathri UV - [910019104011](#)
Mohana Priya S - [910019104025](#)
Pragadeeswari K - [910019104033](#)

ABSTRACT:

Student admission problem is very important in educational institutions. This project addresses machine learning models to predict the chance of a student to be admitted to an university. This will assist students to know in advance if they have a chance to get accepted or not. The machine learning models are Random forest regression, linear regression and Logistic regression. Experiments show that the Random forest regression model surpasses other models.

USE CASE:

The scope of this project is 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 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.

GOAL STATEMENT:

The goal of the system is to provide help to students who are looking for PG Abroad. The system proposes to achieve this by –

- Providing answers to the most commonly asked questions regarding university admissions for PG Studies Abroad.

- Providing an as accurate as possible prediction for the student's chances of admissions to the universities of their choice based on their academic transcripts.
- Providing an analysis conducted over our dataset to the user in order to help them understand the weightage of various academic data values on their chances of admissions.

SURVEY-1

Mr. Pirepolol Dondo (2017) has developed **Cross industry standard process (CRISP) Methodology** (Azevedo 2008) was followed in research. Business understanding, data understanding, data preparation, modelling, evaluation and deployment. The principal objective of the research is to help the students who are aspiring to pursue their education in the USA. The SAP system will help them to evaluate the chances of the success in the university without being depended on any education consultancy firm. It will help them in saving a huge amount of time and money spent in the application process.

SURVEY-2

Amal AlGhamdi et Al (2020) developed a **Graduate Admission Prediction** by using Machine Learning approach to automatically predict the possibility of postgraduate admission to help graduates recognizing and targeting the universities which are best suitable for their profile that three learning strategies of regression to predict the university rate given the students' profile: namely, linear regression, decision tree, and logistic regression model. These models select the best model in terms of the highest accuracy rate and the least error. Logistic Regression model shows the most accurate prediction in our experiments. Employing this model to predict the future applicant's university chance of admission. The advantage of the model is giving the limited number of universities that can be considered by a human consultant, this approach might be bias and inaccurate.

SURVEY-3

Mr. Jubail (2020) has developed **Earlier student performance prediction** can help decision makers to provide needed actions at the right movement. and to planning the appropriate training order to improve the student rate several studies have been published in using data mining methods to predict students' academic success. One can observe several levels targeted. ~Degree Level Year Level Course Level Exam Level. In this study literature related to exam level is excluded as the outcome of single exam does not necessarily imply a negative outcome. Earlier student performance prediction can help universities to provide timely action, like planning for appropriate training to improve students' success gate. Exploring educational data can certainly help in achieving the desired educational goals. (By applying EDM Techniques it is possible to develop prediction

models to improve student success). However, using data mining techniques can be daunting and challenging for non-technical person.

SURVEY-4

Sujay S (2020) proposed **Graduate Admission Prediction** using Machine learning algorithm, Python and Exploratory Data Analysis that is used to analyze and predict the possibility of a person getting an admit for graduate courses in the United States based on various libraries on a Kaggle dataset. This can be done by implementing the Linear Regression which is one of the famous statistical methods in linear algebra. After implementing immense research on the dataset, explore the relationship between each factor which contributes in one or the other way to get an admit. The dataset used contains labelled data. The supervised machine learning algorithm is used for predicting labelled data. The model trains on the data in the dataset and then predicts the data from the user. Finally, using linear regression, allows the program to predict the data from the user.

SURVEY-5

Jeevan Ratnakar K. et.al (2021) proposed a **Graduate Admission prediction** using Machine Learning. A comparative approach by developing four machine learning regression models: linear regression, support vector machine, decision tree and random forest for predictive analytics of graduate admission chances. Newly graduate students usually are not knowledgeable of the requirements and the procedures of the postgraduate admission and might spend a considerable amount of money to get advice from consultancy organizations to help them identify their admission chances. A decision tree algorithm based on the test attributes like GRE, TOEFL, CGPA, research papers etc. According to their scores the possibilities of chance of admit is calculated. The advantage of this model is that it has 93% accuracy.

SURVEY-6

Dr. Arun Kumari B.et Al (2021) developed an **Automated Web Application Prediction Model** for a college admission system that can be used for judicious college selection before the allotment system is developed considering K-CET. Similarly, this system can be used for the Common Entrance Tests of other states and for other entrance examinations at the national level only by changing the database used. A method that will support an organization to explore the current scenario of student enrollment by predicting student enrollment behavior. It brings an approach like APRIORI examines a student's admissions behavior by considering the student's major and the majors he/she has chosen to enter. The method also presents a naive-bayes data mining procedure that predicts

which course a student may enroll in. Since the student's choices would be considered, the institution will be able to increase the admissions of the field based on the expected results.

CONCLUSION:

We at University Admit Eligibility Predictor are here to provide a solution to that problem. Not only do we provide a single platform that documents all the requirements as well as the different tiers of universities, but our website also incorporates an AI Model that was built after considering many leading Machine Learning Algorithms, to provide the most accurate prediction of how much of a chance of admissions does a student's current grades and other academic transcripts allow them in the tier of universities of their choice.

REFERENCES:

1. "The Daily Star," 2017. [Online]. Available: <https://www.thedailystar.net/backpage/public-universities-admission-still-uphill-battle-1438285>. [Accessed 2020].
2. C. C. Aggarwal, Data Mining: The Textbook, 1 ed., Springer International Publishing Switzerland, 2015.
3. P. Binu, A. Chandran and M. Rahul, "A Cloud-Based Data Analysis and Prediction System for University Admission," in 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT), 2019.
4. M. S. Acharya, A. Armaan and A. S. Antony, "A comparison of regression models for prediction of graduate admissions," in International Conference on Computational Intelligence in Data Science (ICCIDS), 2019.
5. A. M. Roa, N. Dharani, A. S. Raghava, J. Buvanambigai and K. Sathish, "College Admission Predictor," Journal of Network Communications and Emerging Technologies (JNCET), vol. 8, no. 4, April 2018.
6. R. V. Mane and V. Ghorpade, "Predicting student admission decisions by association rule mining with pattern growth approach," in International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques (ICEECOT), 2016.