LITERATURE SURVEY

1. TITLE: A Machine Learning Approach for Graduate Admission Prediction

AUTHOR: Amal AlGhamdi, Amal Barsheed, Hanadi AlMshjary, Hanan AlGhamdi

YEAR : 2020

OVERVIEW: With the increase in the number of graduates who wish to pursue their education, it becomes more challenging to get admission to the students' dream university. 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. However, giving the limited number of universities that can be considered by a human consultant, this approach might be bias and inaccurate. Thus, in this paper, a machine learning approach is developed to automatically predict the possibility of postgraduate admission to help graduates recognizing and targeting the universities which are best suitable for their profile. This paper evaluates three learning strategies of regression to predict the university rate given the students' profile; namely, linear regression, decision tree, and logistic regression model. This paper evaluates, these models to 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, and hence, we suggest employing this model to predict the future applicant's university chance of admission

TECHNIQUE: Logistic Regression

2. TITLE: Supervised Machine Learning Modelling & Analysis for Graduate Admission Prediction

AUTHOR: Sujay S

YEAR: 2020

OVERVIEW: Predictive modelling has found its place in this century for providing an in-depth view and in helping humans in their day to day activity. In this paper, I have analyzed and predicted the possibility of a person getting an admit for graduate courses in the United States based on a supervised machine learning algorithm using Python and its various libraries on a Kaggle dataset. After implementing immense research on the dataset, explored the relationship between each factor which contribute in one or the other way to get an admit. Finally, using linear regression, allowed the program to predict the data from the user.

TECHNIQUE: Linear Regression

3. TITLE: A Comparison of Regression Models for Prediction of Graduate Admissions

AUTHOR: Mohan S Acharya, Asfia Armaan, Aneeta S Antony

OVERVIEW: Prospective graduate students always face a dilemma deciding universities of their choice while applying to master's programs. While there are a good number of predictors and consultancies that guide a student, they aren't always reliable since decision is made on the basis of select past admissions. In this paper, we present a Machine Learning based method where we compare different regression algorithms, such as Linear Regression, Support Vector Regression, Decision Trees and Random Forest, given the profile of the student. We then compute error functions for the different models and compare their performance to select the best performing model. Results then indicate if the university of choice is an ambitious or a safe one.

YEAR: 2019

TECHNIQUE: Linear Regression, Random Forest, Decision Trees

4. TITLE : Prediction of Graduate Admission using Multiple Supervised Machine Learning Models

AUTHOR: Zain Bitar, Amjed Al-Mousa

OVERVIEW: –In response to the highly competitive job market at present times, an increased interest in graduate studies has arisen. This has not only burdened applicants but also led to an increased workload on admission faculty members of universities. Any chance of abridging the admission process impelled applicants and faculty workers to look for faster, efficient, and more accurate methods for predicting admissions. The goal approach of this paper is to implement and compare several supervised predictive analysis methods on a labeled dataset based on real applications from the prestigious university of UCLA; Regression, classification, and Ensemble methods are all the supervised methods that are to be employed for prediction. The dataset relies profoundly on the academic performance of the applicants during their undergrad years. The coefficient of determination, as well as precision and accuracy, are the measures used to compare the different models. All predictive methods proved to show accurate results, however; certain methods proved to be more promising than others were. Predictions were obtained within short time frames, which in turn will cut down the time in the admission process.

YEAR: 2020

TECHNIQUE: Ensemble methods

5. TITLE: Predicting the Post Graduate Admissions using Classification Techniques

AUTHOR: Selvaprabu Jeganathan, Saravanan Parthasarathy, Arun Raj Lakshminarayanan, P. M. Ashok Kumar, Md. Khurshid Alam Khan.

OVERVIEW: Decision making by applying data mining methods is being used in many service organizations. Educational bodies gradually started to use the business intelligence techniques to identify the current progress in their institutions. Numerous factors which have an impact in academia will be vivid to the educationalists while applying data mining techniques on the academic data. By employing the data mining methodologies, we could identify different patterns which aid institutions to take strategic decisions to improve the students' academic performance. Potential graduate students will have a dilemma on identifying the universities for their post graduate admissions and on the other hand an average graduate student would be uncertain on getting post graduate admission in a reputed university based on their academic scores. In this study, we applied the classification techniques such as Logistic Regression, KNN Classification, Support Vector Classification, Naive Bayes Classification, Decision Tree Classification and Random Forest Classification on the given academic admission dataset. By comparing the accuracy and mean absolute error of each model, the Logistic Regression classifier outperformed others with an accuracy of 99%.

YEAR : 2021

TECHNIQUE : Logistic Regression.