

# **TITLE: A UNIVERSITY ADMISSION PREDICTION SYSTEM USING STACKED ENSEMBLE LEARNING**

**AUTHOR:** S. Sridhar, S. Mootha and S. Kolagati

**OVERVIEW:** "A University Admission Prediction System using Stacked Ensemble Learning," 2020 Advanced Computing and Communication Technologies for High Performance Applications (ACCTHPA), 2020, pp. 162-167, doi: 10.1109/ACCTHPA49271.2020.9213205. Abstract: For an aspiring graduate student, shortlisting the universities to apply to is a difficult problem. Since an application is extremely dynamic, students often tend to wonder if their profile matches the requirement of a certain university. Moreover, the cost of applying to a university is extremely high making it critical that students shortlist universities based on their profile. A university admission prediction system is quite useful for students to determine their chances of acceptance to a specific university. The system could make use of data related to previous applicants to various universities and their admit or reject status. Earlier models of such prediction systems suffer from several drawbacks such as not considering important parameters like GRE (Graduate Record Exam) scores or research experience. Further, the accuracy reported by earlier models is also not sufficiently high. In this paper, a stacked ensemble model that predicts the chances of admit of a student to a particular university has been proposed. The proposed model takes into consideration various factors related to the student including their research experience, industry experience etc. Further, the system proposed has been evaluated against various other machine learning algorithms including other deep learning methods. It is observed that the proposed model easily outperforms all other models and provides a very high accuracy. Observation: An effective method has been proposed to predict the chances of a student being admitted to a specific university. In addition, we have compared the performance of various machine learning algorithms to the proposed method in predicting admits.

**ACCURACY:** 91%

**URL:** <https://ieeexplore.ieee.org/document/9213205>

## **TITLE: PREDICTION PROBABILITY OF GETTING AN ADMISSION INTO A UNIVERSITY USING ML**

**AUTHOR:** A. Sivasangari, V. Shivani, Y. Bindhu, D. Deepa, R. Vignesh

**OVERVIEW:** In the present conditions, students regularly have difficulty finding a fitting institution to pursue higher studies based on their profile. There are some advisory administrations and online apps that recommend universities but they ask huge consultancy fees and online apps are not accurate. So, the aim of this research is to develop a model that predict the percentage of chances into the university accurately. This model provides also the analysis of scores versus chance of prediction based on historical data so that students can understand whether their profile is suitable or not. The proposed model uses linear regression and random forest algorithms but cat boost algorithm is giving highest accuracy.

**ACCURACY:** 95%

**URL:** <https://ieeexplore.ieee.org/document/9418279>

## **TITLE: PREDICTING THE POST GRADUATE ADMISSIONS USING CLASSIFICATION TECHNIQUES**

**AUTHOR:** Selvaprabu Jeganathan, Saravanan Parthasarathy and P. M. Ashok Kumar

**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.

**ACCURACY:** 99%

**URL:** <https://ieeexplore.ieee.org/document/9396815>

# **TITLE: MULTI DISEASE PREDICTION MODEL BY USING MACHINE LEARNING AND FLASK API**

**AUTHOR:** Akkem Yaganteeswarudu

**OVERVIEW:** Many of the existing machine learning models for health care analysis are concentrating on one disease per analysis. Like one analysis if for diabetes analysis, one for cancer analysis, one for skin diseases like that. There is no common system where one analysis can perform more than one disease prediction. In this article proposing a system which used to predict multiple diseases by using Flask API. In this article used to analyse Diabetes analysis, Diabetes Retinopathy analysis, Heart disease and breast cancer analysis. Later other diseases like skin diseases, fever analysis and many more diseases can be included. To implement multiple disease analysis used machine learning algorithms, tensorflow and Flask API. Python pickling is used to save the model behaviour and python unpickling is used to load the pickle file whenever required. The importance of this article analysis in while analysing the diseases all the parameters which causes the disease is included so it possible to detect the maximum effects which the disease will cause. For example for diabetes analysis in many existing systems considered few parameters like age, sex, bmi, insulin, glucose, blood pressure, diabetes pedigree function, pregnancies, considered in addition to age, sex, bmi, insulin, glucose, blood pressure, diabetes pedigree function, pregnancies included serum creatinine, potassium, GlasgowComaScale, heart rate/pulse Rate, respiration rate, body temperature, low density lipoprotein (LDL), high density lipoprotein (HDL), TG (Triglycerides). Final models behaviour will be saved as python pickle file. Flask API is designed. When user accessing this API, the user has to send the parameters of the disease along with disease name. Flask API will invoke the corresponding model and returns the status of the patient. The importance of this analysis to analyse the maximum diseases, so that to monitor the patient's condition and warn the patients in advance to decrease mortality ratio.

**ACCURACY:** 92%

**URL:** <https://ieeexplore.ieee.org/document/9137896>