UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

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ABSTRACT

Students are often worried about their chances of admission to University. The aim of this project is to help students in shortlisting universities with their profiles. The predicted output gives them a fair idea about their admission chances in a particular university. This analysis should also help students who are currently preparing or will be preparing to get a better idea.

Objectives:

- To understand regression and classification problems
- To grab insights from data through visualization.
- Applying different ML algorithms to determine the probability of acceptance in a particular university.
- Evaluation metrics
- Build a web application using the Flask framework.

Literature Survey

[1]

Graduate Admission Prediction Using Machine Learning (2020)

In this study, machine learning algorithms are used to forecast a student's likelihood of admission to a master's degree. Students will benefit from knowing in advance whether they stand a chance of being admitted. Multiple linear regression, k-nearest neighbour, random forest, and multilayer perceptron are the machine learning models. The Multilayer Perceptron model outperforms other models, according to experiments.

i)Multiple methods have been tested to determine which model gives the highest accuracy.

●

ii)Ranking of features that play the most crucial role in determining admit to a university.

[2]

University Admissions Predictor Using Logistic Regression (2021)

This is a novel study on a predictor for university admissions that allows students to assess their chances of being admitted to an institution. Real student data is gathered in order to construct this. The information is kept in the form of a training set that may be used by the logistic regression classifier designed to predict admissions.

i) Web scraping has been employed to fetch student data from multiple websites.

i)Many factors like publications, work experience, extracurriculars have not been considered.
ii)Relies on a single ML model.

[3] Prediction of Admission Process for Gradational Studies using Al Algorithm (2020) This paper compares and recognizes which AI algorithm is going to give precise outcome for admission chances in a particular university. Algorithms used - Multi Linear Regression, Polynomial Regression, Random Forest i) Performance of 3 ML algorithms have been compared. ii) The random forest approach has achieved a high accuracy of 94%. i) Just provides prediction for a particular university, the approach doesn't provide a list of universities where the candidate will be eligible for admission.

[4] Personalized College Recommender and Cutoff Predictor for Direct Second Year Engineering (2022) This study makes the claim that it can forecast each college's cut off by analysing data from past years' cutoffs, offer a list of recommended colleges based on student preferences, and compare various institutions in great detail. In order to save time and make the student's college selection process easier, the application is designed to provide a tailored system. i) Indian-context (Here, colleges in Maharashtra have been considered). ii) Recommends colleges for diploma students who require admission in Direct Second Engineering(DSE). This approach cannot be generalized to all colleges in India as each state in India follows a different procedure for admission.
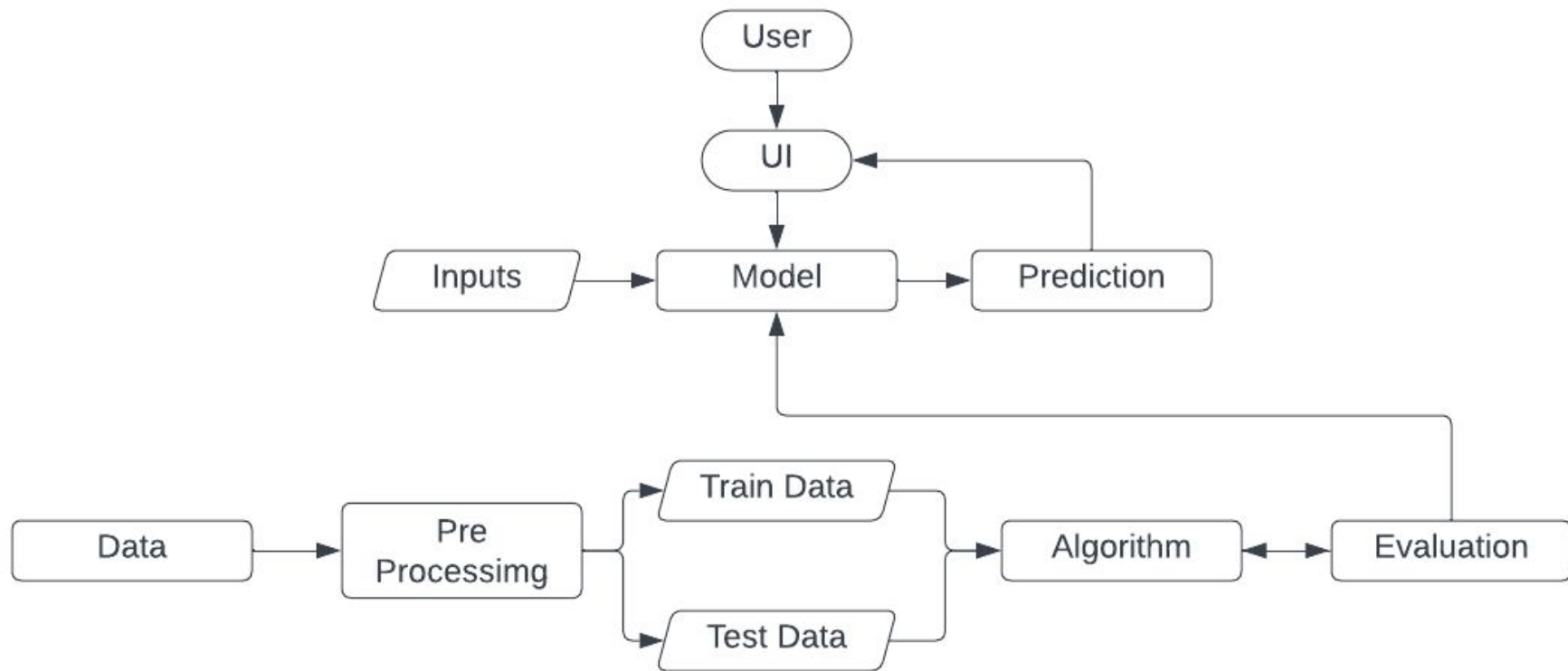
EMPATHY MAP

UNIVERSITY ADMIT PREDICTOR

Team Members : Akash, Abisha, Tejashree, Charumathi

What do they THINK AND FEEL?
{ what really counts
major preoccupations
worries & aspirations }

- Does this university offer the desired course?
- Will it accurately determine the acceptance % for a particular university?
- Stressed about making right decisions
- Feeling competitive about performing better than the rest of the application pool.
- Can I get to know the QS Ranking of the univeristy?
- Does it actually determine the acceptance % for all the renowned universities?
- Why should I trust this over several popular consultancies for higher education?
- Are these grades enough to get into top US universities?
- Closeness to their hometown/relatives' house

What do they HEAR?
{ what friends say
what boss say
what influencers say }

- Counselors claim that the university admissions application procedure takes a lot of time.
- Some claim, picking a university is easy for us.
- Easy and fast outcome. Less time consuming as work done without physical checking
- The best college must be choosen accurately and Want to find the best matched university
- "Can we further increase the accuracy of the prediction?"
- Friend: "Hey, the results are indeed accurate! I got accepted to XYZ university!!"
- The students want to provide correct information about themselves
- Good entrance exam outcomes at many colleges simplify the applicant's admissions procedure.

What do they SEE?
{ environment
friends
what the market offers }

- They are able to realise where they stand
- Whether there is transparency and openness
- Go through statistics and previous years data
- Job opportunities post study
- How keen are they to pursue higher studies?
- Do they have friends who are currently pursuing higher studies abroad or planning to do so in the near future?
- Fake Advertisement of colleges must be avoided
- Lot of higher education consultancies demanding huge amount of money to determine which universities should a candidate apply to.

What do they SAY AND DO?
{ attitude in public
appearance
behavior towards others }

- Simple and Interactive User Interface
- Determine acceptance % considering factors like CGPA, GRE and TOEFL scores, LOR, SOP, etc.
- Can you guarantee the accuracy of the application?
- The accuracy of our ML model is >= 90%
- Determine the acceptance % of candidates in all renowned universities.
- Check min scores, percentage that a particular university gives admit
- Filter universities based on ranking

PAIN
{ fears
frustrations
obstacles }

- choosing college which may change the stream of a particular individual after reopening is the major default.
- False application process and Seat Allotment Problems
- Make mistakes while choose an university
- I'm not eligible for good universities :(
- What do I do if the results are false?
- What's the guarantee that my sensitive data will not be leaked to 3rd party websites?
- Pain gives out the imposing problems at hand
- Will the UI of the web app be convenient to use?
- Why should I trust this application?

GAIN
{ "wants" / needs
measures of success
obstacles }

- The list of Best colleges as per the marks obtained by an individual
- Economic inequality, Racial inequality will not affect the admission
- Budgeting. that is planning on colleges
- Get more recommendations about universities
- We gain more accurate system to predict the college
- Realize where they are and how much effort is required to get into their dream university.
- The predictions of our web app were accurate and the candidate got admitted to the university of his/her choice.
- The management cannot influence about their institution among the parents and students through fake ads
- The candidate was happy with the efficiency and usability of the software
- The interface of the application was very user-friendly and the candidate had a hassle-free experience.
- The candidate didnot have to spend huge amounts of money to consultancies.

Members

SOLUTION ARCHITECTURE

NOVELTY

Develop a novel deep learning-based hybrid model that has a better accuracy than the existing traditional ML models.

Provide feedback on the parameters where the candidate is lacking so that he can improve on those areas.

REFERENCES

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