

## LITERATURE SURVEY

### UNIVERSITY ADMIT ELIGIBILITY PREDICTOR?

#### What is a university admit eligibility predictor?

A university eligibility predictor is a tool that is designed for students who are finished with their schooling/UG and aspire to get admitted into prominent universities in India/abroad. It provides them with their chances of admission in different universities based on certain criteria pertaining to their admission process. It could prove to be really helpful as it can provide some clarity to students on universities to which they can apply for admission.

#### Problem statement

How to design an eligibility predictor for students which provides them with their chances of getting admitted into different universities based on their scores and other important criteria.

#### Use case:

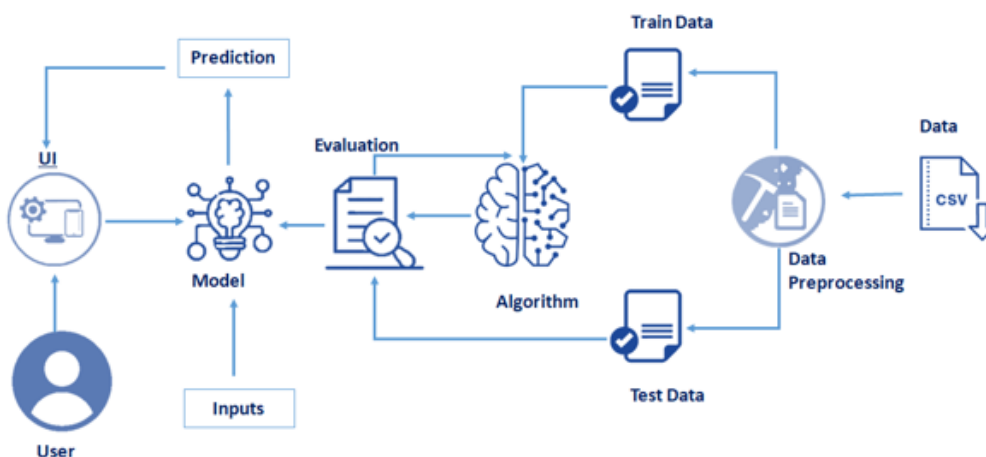
University education is becoming a critical pillar of social and economic life in the twenty-first century. It is crucial not only in the educational process but also in assuring two vital things: a great job and financial stability. On the other hand, might be extremely challenging because pupils are unaware of the admission standards. They waste lot of time and money.

#### **Social Impact:**

It will help students making decision for choosing a right college.

#### **Business impact:**

Getting potential students automatically business will increase.



## **EXISTING SOLUTION I: CollegeAI**

- This chance me admissions probability calculator computes the chance of admission to Universities in US based on historical admissions data.
- This predictor has been designed to predict chances of admissions for a student in 10 prominent universities in the United States (University of Arizona, Texas state University, Florida state university etc.)
- It also has a 'Find your perfect college' feature which asks the user to fill out a small survey which questions them on their likes, dislikes, talents, skills and areas of interests and then suggest colleges which it finds suitable for the user based on the survey.,

### **Factors considered:**

- High school GPA
- SAT score
- ACT score

The screenshot shows the CollegeAI website interface. At the top is a blue header with the CollegeAI logo on the left and navigation links (Login, Restart, Sign Up, Chance Me) on the right. Below the header, a grey box contains the text: "This chance me admissions probability calculator computes the chance of admission to Trine University based on historical admissions data." The main form area has a title "Chance me for" followed by a dropdown menu currently set to "Trine University". Below this, there are three sections for inputting scores: "High School GPA" with fields for "Your Weighted GPA" and "Maximum Unweighted GPA"; "SAT Scores" with fields for "Your SAT Math Score" and "Your SAT Reading Score"; and "ACT Scores" with fields for "Your ACT Math Score", "Your ACT Reading Score", "Your ACT Science Score", and "Your ACT English Score".

### **Drawbacks:**

- ✓ It covers only a limited number of universities
- ✓ Graphical representation would be a bit difficult to comprehend.
- ✓ It doesn't provide the user with their chances of getting a particular course at a specific university.
- ✓ Takes very few factors into account for judging eligibility.

### **Learnings:**


The questionnaire employed to suggest colleges suitable to the student is a very interesting concept and might prove to be very beneficial to students. The UI is very smooth and easy on the eye from a user's POV

## EXISTING SOLUTION – II: CollegeVine

- CollegeVine focuses on taking the guess work out of college admissions and clearing the misconceptions surrounding average acceptance rates and personal admission chances prevalent among students.
- It also tries to take certain factors that might be outside of a student's control (diverse racial, economic and personal backgrounds) into account before deciding their chances.
- It focuses on prominent universities based in the United States like Vanderbilt university, Princeton university, Stanford university etc.

### Factors considered:


- Coursework
- GPA
- Test scores
- Extra Curriculars
- Demographics
- Intended major
- College rank



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### The most accurate college admissions calculator, ever

Factor your extracurriculars, intended major, background, and more for the most accurate chancing available. All for free.

Calculate your chances for free →



#### What is chancing?



**Vanderbilt University**  
Your chances: 12%  
GPA - excellent ▾  
Coursework - strong ▾  
SAT/ACT - strong ▾  
Extracurriculars - room for improvement ▾

See your likelihood of acceptance at thousands of colleges, with detailed breakdowns on how to improve.

#### How accurate is it?

CollegeVine Predicted Chance		Actual Percentage Accepted
5% <span>Reach</span>	→	7.2%
50% <span>Target</span>	→	48.1%
80% <span>Safety</span>	→	82.2%

Thanks to advances in data science, our predictions are extremely accurate. Here's how our predictions performed last year.

WHAT CURRENT SENIORS ARE SAYING

**Drawbacks:**

- ✓ Not very user friendly in nature
- ✓ UI is not up to the mark and this might put the user through a lot of hassles
- ✓ Misuse of data submitted by the user is a possibility

**Learnings:**

The whole process behind calculating eligibility chances is explained in simple terms for the user's benefit which is a very important aspect from a user's POV.

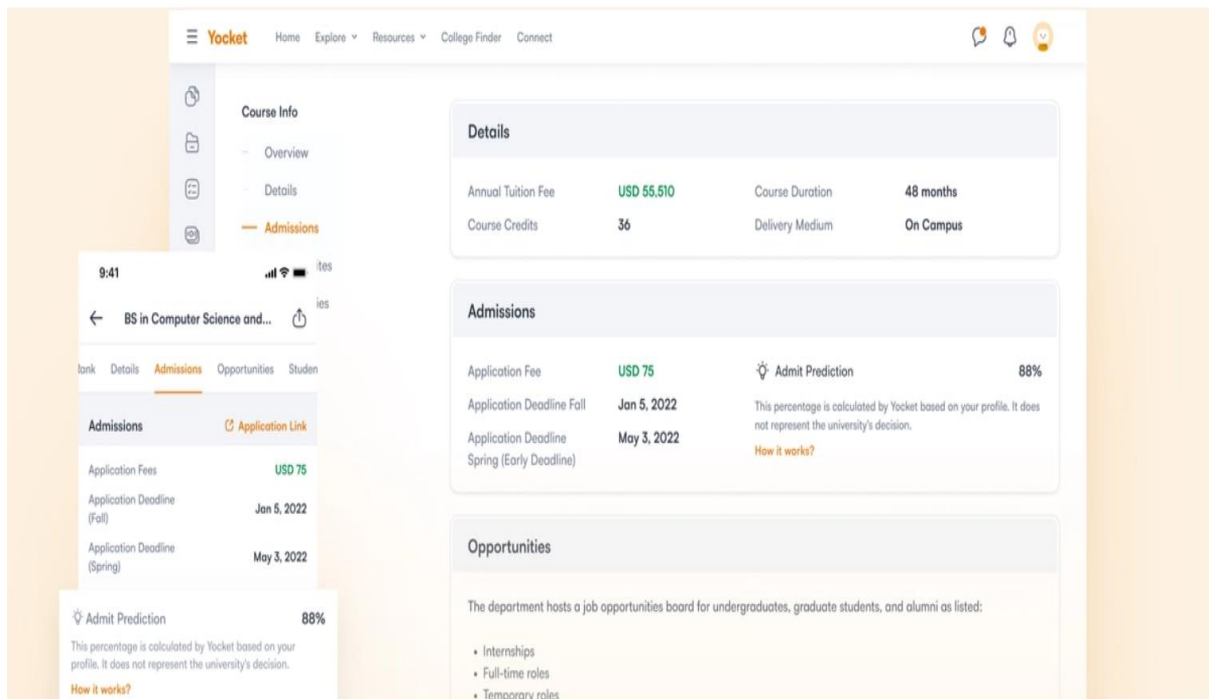
This predictor takes a lot of factors into account including certain non-academic factors before judging the chances of a student which might be the reason behind their model's astounding accuracy rate.

**EXISTING SOLUTION – III: Yocket**

- Yocket Admit Predictor gives the user the chances of making it into a particular program in a university they like. It is a very handy feature that's specifically designed for aspirants pursuing Masters in either US or Canada.
- They have equipped it with Artificial Intelligence and Machine learning to give the user a close enough percentage based on the data information they have gathered along the way.
- It is exclusively for students aspiring to get admitted into top universities outside of India.
- Admit Predictor works on the combination of historical Yocket user data, Artificial Intelligence based algorithms and Machine Learning.

**Factors considered:**

- GRE scores
- Aptitude scores
- UG scores
- English test scores
- Experience
- Technical papers



### Drawbacks:

- ✓ Not free to use
- ✓ Restricted to Masters programs only
- ✓ Procedure is time consuming in nature and might test an user's patience

### Learnings:

An algorithm has been developed by Yocket team which collects all the relevant data like admits, rejects, test scores, CGPA, course studied and more provided by previous Yocket users over the years. The algorithm has created a pattern of admits and rejects across courses and universities based on the collected information.

When the user adds information to their profile, it compares and calculates the admit chances based on the pattern it has deciphered.

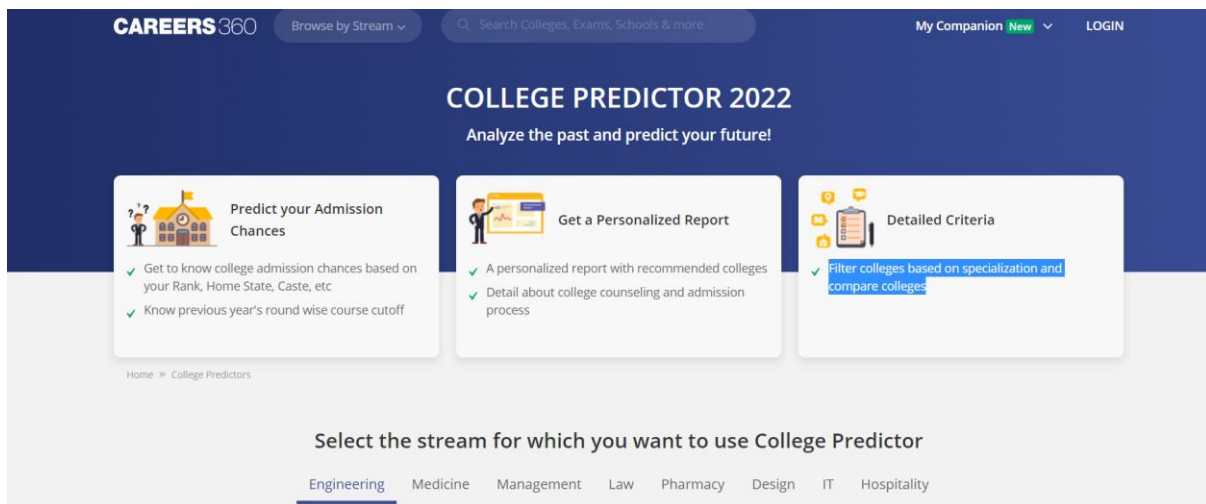
The Machine Learning aspect of the feature takes in their information including admit and reject record to update its database and results in the future

## EXISTING SOLUTION – IV: Careers360

- It lets its users know their college admission chances based on their rank, home state, caste, etc
- It additionally provides them with previous year's round wise course cut-off and details about the counselling and admission process
- A personalized report with recommended colleges is designed exclusively for the users
- Finally, it lets its users filter colleges based on specialization and compare colleges

### Factors considered:

- Rank
- Home state
- 12<sup>th</sup> marks
- Entrance exams scores
- Choice of course



### Drawbacks:

- ✓ Not many factors are not taken into consideration
- ✓ This predictor is not reliable as other predictors found online
- ✓ There is no information about the working procedure of the algorithm used for this model.

### Learnings:

This predictor covers a lot of colleges across varied fields (engineering, medicine, law, pharmacy etc..), since its scope is very large, it could prove to be the one-stop destination for all passed out students. Since it has to cover a lot of universities across diverse fields, it has to factor in different entrance exams specific to each of those fields into their algorithm.

## **INFERENCES:**

Upon carefully analysing these existing solutions and several other research papers related to our project, 'University admit eligibility predictor', we have made the following inferences which might aid us in our bid to design an eligibility predictor of our own:

I. We have to take into account as many factors as possible in order to increase the accuracy and reliability of the model.

II. The predictor should be user friendly in nature and the whole process should be hassle free.

III. The UI of the predictor should be smooth and decluttered.

IV. We need to try and increase the scope of our predictor as much as possible to increase the number of users accessing our product.

V. It should be ensured that the whole process doesn't turn out to be a time-consuming affair for the user.

VI. We should try to convey the working procedure behind the model in simple terms to the user.

VII. Data collection is one of the most important steps in the process of designing the model and achieving a near perfect data set could go a long way in increasing the accuracy and reliability of our model.

VIII. Scores secured by the students in entrance exams should be taken into consideration as well since certain university base their admissions on those scores.

IX. Certain non -academic criteria could also be a deciding factor in the admission process of some universities, so we need to research them and factor it into our model if possible.

X. The privacy/security of the user should be of utmost importance and the data provided by them should be safe guarded.

## **REFERENCES**

- CollegeAI predictor

<https://collegeai.com/chanceme>

- CollegeVine predictor

<https://www.collegevine.com/admissions-calculator>

- Yocket's admit predictor

<https://yocket.com/blog/yocket-admit-predictor>

- Careers360 predictor

<https://www.careers360.com/college-predictor>

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