

Arignar Anna Govt. Arts & Science

College, Cheyyar

Project Title :

**Intelligent Admissions: The Future of
University Decision Making with
Machine Learning**

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1.INTRODUCTION:

1.1.Overview:

University admission is the process by which students are selected to attend a college or university. The process typically involves several steps, including submitting an application, taking entrance exams, and participating in interviews or other evaluations.

Students are often worried about their chances of admission in University. The university admission process for students can be demanding, but by being well-informed, prepared, and organized, students can increase their chances of being admitted to the university of their choice.

With this project, students can make more informed decisions about which universities to apply to, and universities can make more efficient use of their resources by focusing on the most promising applicants.

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.

1.2.Purpose:

Intelligent Admission The future of university decision making with machine learning is a technique that involves the use of advanced analytical algorithms and statistical models to analyze and interpret the data related to the admissions.


This technique is useful for identifying the patterns and trends in the data, which can provide valuable insights into the students that influence the placement of various university.

Machine learning algorithm can be used to analyze the data related to students academic performance,their technical skills, and their performance in interviews. This analysis should also help students who are currently preparing or will be preparing to get a better idea.

2.PROBLEM DEFINITION & DESIGN THINKING

2.1.Empathy Map:


Template



Empathy map

Use this framework to develop a deep, shared understanding and empathy for other people. An empathy map helps describe the aspects of a user's experience, needs and pain points, to quickly understand your users' experience and mindset.

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Build empathy

The information you add here should be representative of the observations and research you've done about your users.

Says

What have we heard them say?
What can we imagine them saying?

project analysis

how data can be processed

decision making

data set

good communication

Thinks

What are their wants, needs, hopes, and dreams? What other thoughts might influence their behavior?

hard work

team wise execution

smart thinking

good thinking

Does


What behavior have we observed?
What can we imagine them doing?

fearless

Feels

What are their fears, frustrations, and anxieties? What other feelings might influence their behavior?

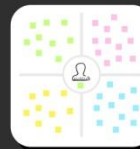



Give them a name and a portrait to empathize with your persona.



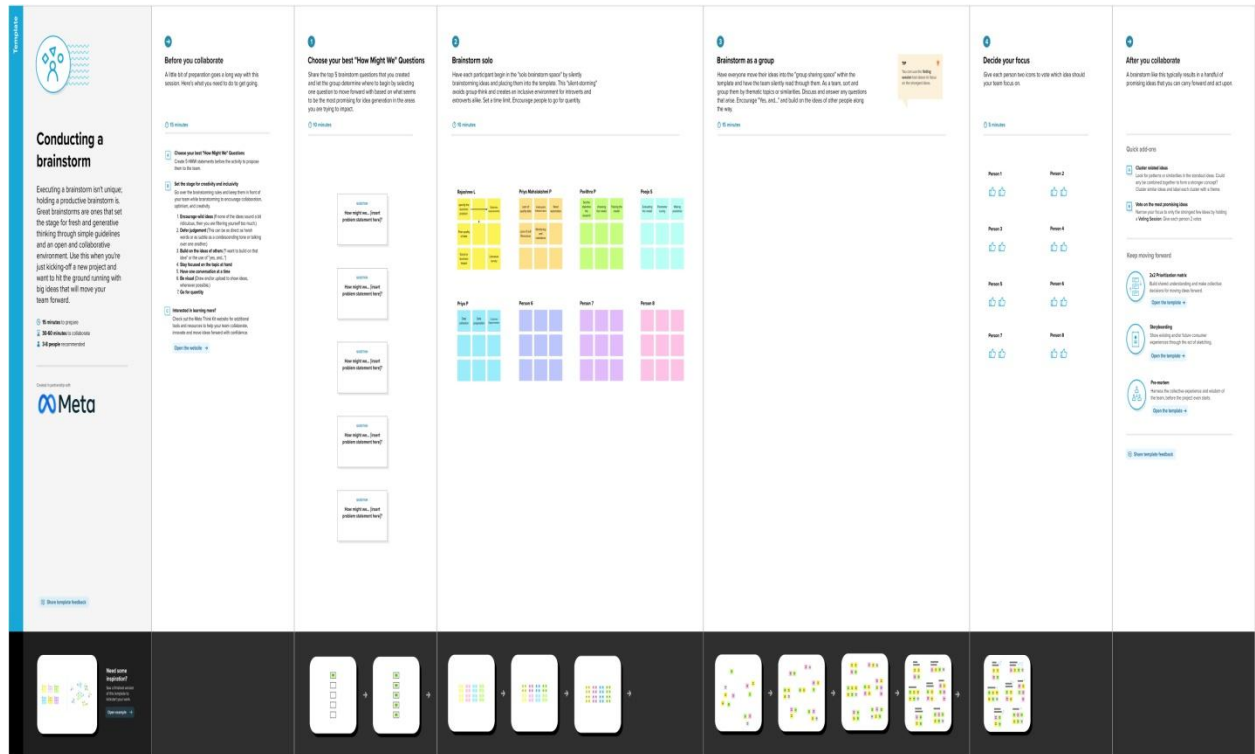
Need some inspiration?

See a finished version of this template to kickstart your work.

[Open example](#)



2.2.Ideation&Brainstorming map:



Advantages

Machine Learning can review large volumes of data and discover specific trends and patterns that would not be apparent to humans. For instance, for an e-commerce website like Amazon, it serves to understand the browsing behaviors and purchase histories of its users to help cater to the right products, deals, and reminders relevant to them. It uses the results to reveal relevant advertisements to them.

With ML, you don't need to babysit your project every step of the way. Since it means giving machines the ability to learn, it lets them make predictions and also improve the algorithms on their own. A common example of this is anti-virus softwares; they learn to filter new threats as they are recognized. ML is also good at recognizing spam.

Disadvantages

Machine Learning requires massive data sets to train on, and these should be inclusive/unbiased, and of good quality. There can also be times where they must wait for new data to be generated.

ML needs enough time to let the algorithms learn and develop enough to fulfill their purpose with a considerable amount of accuracy and relevancy. It also needs massive resources to function. This can mean additional requirements of computer power for you.

Application:

Intelligent Admission you've weighed up all the factors and carefully made your decision, it's time for the really fun part: applying.

Though this might seem obvious, ensure you take care over this. You don't want to miss out simply because you forgot to submit the required evidence or applied too late. "Students should check entry requirements and deadlines before applying to make sure that they have the best possible chance of gaining a place on their chosen course," Berry confirms.

"If they are unsure whether their qualifications are acceptable, they might like to contact the admissions office or international office in their chosen institution to check before submitting a full application."

She emphasizes the importance of applying in good time: "Students should try to make an application as early as possible as this will give them plenty of time to make all the necessary arrangements for a move abroad, including organizing their finances, applying for scholarships and obtaining a student visa."

Conclusion:

Artificial Intelligence has the potential to transform all organizations. The process by which this transformation happens can vary .But the steps will tend to follow the roadmap we have listed in this book.

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.

Future Scope of Artificial Intelligence

The adoption of Artificial Intelligence in India is promising. However, currently, it is at a nascent stage. While there are a few industries such as IT, manufacturing, automobile, etc, that are leveraging the prowess of AI, there are still many areas in which its potential is unexplored.

The immense potential that AI holds can be understood by the various other technologies that are covered under the umbrella of AI. Some of the examples of such technologies include self-improving algorithms, Machine Learning, Pattern Recognition, Big Data, and many others. In the next few years, it is predicted that there will hardly be any industry left untouched by this powerful tool. This is the reason why AI has so much potential to grow in India.

Source code:

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
data = pd.read_csv('/content/sample_data/Admission_Predict.csv')
data
data.info()
data.isnull().any()
data=data.rename(columns={'change of admit ':'Change of Admit'})
data.describe()
sns.distplot(data['GRE Score'])
sns.pairplot(data=data,hue='Research',markers=["^" , "v"],palette='inferno')
sns.scatterplot(x='University Rating',y='CGPA',data=data,color='Red',s=100)
from sklearn.preprocessing import MinMaxScaler
sc=MinMaxScaler()
x=sc.fit_transform(x)
x
x=data.iloc[:,0:7].values
x
y=data.iloc[:,7:].values
y
29
y_train=(y_train>0.5)
y_train
y_test=(y_test>0.5)
import tensorflow as tf
from tensorflow import keras
```

home.html

```
<!doctype html>
<html>
<head>
<title>
UNIVERSITY ADMISSION PREDICTION SYSTEM
</title>
</head>
```

```

<body>
<br>
<form>
<label>enter QRE score</label>
<input type="text" name="enter QRE score" size="15"><br><br>
<label>enter TOEFL score</label>
<input type="text" name="Enter TOEFL Score" size="15"><br><br>
<label>
select university on:
</label>
<select>
30
<option value="select University on">select university on</option>
<option value="1">1</option>
<option value="2">2</option>
<option value="3">3</option>
<option value="4">4</option>
<option value="5">5</option>
</select>
<br>
<br>
<label>Enter SOP</label>
<input type="text" name="Enter SOP" size="15"><br><br>
<label>Enter LOR</label>
<input type="text" name="Enter LOR" size="15"><br><br>
<label>Enter CGPA</label>
<input type="text" name="Enter CGPA" size="15"><br><br>
<label>
Research
</label><br>
<input type="radio" name="Research"/>Research<br>
<input type="radio" name="No Research"/>No Research<br>
<br>
<br>
<input type="submit" value="submit">
<input type="reset" value="Reset">
</form>
31
</body>
</html>

```

Project .py

```
import numpy as np
from flask import Flask, request, jsonify, render_template
import pickle
app = Flask(name)
from tensorflow.keras.models import load_model
model = load_model('model.h5')
@app.route('/')
def home():
    return render_template('Demo2.html')
@app.route('/')
def home():
    return render_template('Demo2.html')
@app.route('/y_predict', methods=['POST'])
def y_predict():
    """
    for rendering results on HTML GUI
    """
    min1=[290.0, 92.0, 1.0, 1.0, 1.0, 6.8, 0.0]
    max1=[340.0, 120.0, 5.0, 5.0, 5.0, 9.92, 1.0]
    k= [float(x) for x in request.form.values()]
    p=[]
    for i in range(7):
        l=(k[i]-min1[i])/(max1[i]-min1[i])
        p.append(l)
    prediction = model.predict([p])
    print(prediction)
    output=prediction[0]
    if(output==False):
        return render_template('noChance.html', prediction_text='you dont have a chance of getting admission')
    else:
        return render_template('chance.html', prediction_text='you have a chance of getting admission')
if name == "main":
    app.run(debug=False)
```