Admission Success Predictor

Predicting Graduate Admission Outcomes

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Problem Statement

Problem

Graduate admissions decisions involve multiple factors such as academic performance and test scores. Evaluating applications manually can be subjective and time-consuming.

Objective

To build a machine learning model that predicts the likelihood of admission based on applicant profiles.

Dataset

Dataset Used - Admission_Predict_Ver1.1.csv

https://www.kaggle.com/datasets/mohansacharya/graduate-admissions

Features

- GRE Score
- TOEFL Score
- University Rating
- SOP Strength
- LOR Strength
- CGPA
- Research Experience

Target

Chance of Admit (converted to binary classification)

Data Preprocessing

1. Removed identifier column (Serial Number)
2. Standardized column names
3. Handled missing values using median imputation
4. Converted admission probability to binary outcome
5. Scaled features for Logistic Regression

Models Used

Logistic Regression

Random Forest Classifier

Why these models?

Logistic Regression: simple, interpretable baseline

Random Forest: captures non-linear relationships

App Deployment

Built an interactive Streamlit web application

Users enter applicant details

App outputs admission likelihood with explanation

Admission Success Predictor

Enter application details to predicts admission outcome.

GRE Score

320

TOEFL Score

110

University Rating

3

SOP Strength

3.00

CGPA

8.50

Research Experience

1

Predict Admission

Likely to be admitted (Probability: 99.62%)

Why this result?

Strong CGPA significantly improves admission chances.

High GRE score strengthens the application.

Strong TOEFL score indicates good language proficiency.

Research experience positively influences admission.