# Predicting Academic Success Using Machine Learning

## Problem Statement

This classification problem is to predict the academic success of a student. In the academic space student can either dropout or graduate. Early identification of students at risk of dropping out or not graduating can help educational institutions to come up with ways to help students.

## Approach

**Data Collection and Preparation**:  
Pushed data to github and loaded dataset

**Data preprocessing**:

Generated statistical report on dataset and checked for missing values. Also encoded all categorical values

**Model Development**:

Experimented with various machine learning algorithms to identify the best performing model.

**Evaluation and Validation**:

Test the model rigorously using cross-validation and accuracy score of the model.

## Results

XGBoostClassifier performed very well on the dataset and gave an accuracy of 83% max.

## Conclusion

In Conclusion, Ensemble models have high performance.