

PROJECT REPORT
MACHINE LEARNING MODEL TO PREDICT
THE RISK OF STUDENTS NOT GRADUATING ON
TIME



DIONYSIUS ABIRAMA PUTRA
16.K1.0052

Faculty of Computer Science
Soegijapranata Catholic University
2023



PROJECT REPORT
MACHINE LEARNING MODEL TO PREDICT
THE RISK OF STUDENTS NOT GRADUATING ON
TIME

DIONYSIUS ABIRAMA PUTRA
16.K1.0052

Faculty of Computer Science
Soegijapranata Catholic University
2023

ABSTRACT

The purpose of this study is creating a program to predict the risk of college student not graduating on time, which is graduating after more than four years of study. The approach to solve this problem is by developing machine learning with Random Forest algorithm. The model is trained and tested using dummy dataset of US student academic records within the first semester to fourth semester. The model is also trained with different number of generated tree. To analyze the result, Confusion Matrix is used to compare the accuracy, precision, misclassification, and recall rates of each trained model. The final result shown that Random Forest model with 91 generated tree has the highest accuracy of 67%, to predict the risk of student not graduating on time.

Keyword: classification, machine learning, Confusion Matrix, Random Forest

