I423 Final Project Report

Die Hu

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1   Abstract

In this project, an artificial neural network model from python package 'sklearn' is used to predicting the likely performance of a student on the first period grade based on a data set from UCI Machine Learning Repository that the data consisted approach student achievement in secondary education of two Portuguese school for Portuguese language class and the data set contains attributes, for example, include information of the 395 students' grades, demographic and social that collected by school reports and questionnaires.

2   Introduction

Students' academic performance may likely to be influenced by various factors, such factors were considered as attributes in the data set and input for the prediction model. The prediction model could be used by advisors to predict the students' performances based on the student's information more precise and efficient that save times from reading transcripts and basic information of the student and compare with the other students' information that the advisor knows.

3   Overall Process

I created a predication model is to predict the Final Grade (G3) that is 0 out of 20 points. The model is created by using mlp from sklearn package from python library.

4   Result

The first model that contains 32 variables as input, the accuracy of the prediction is 46%. The second model that contains 2 variables (G1 and G2) as input, the accuracy of the prediction is 53% with some changes in the "hidden$_{layer_s}izes$"$parameter from sklearn.neural_network.MLPClassifier()$

5   References

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