

IE 583 Homework 3

This homework assignment is due on Tuesday, March 27th, by the end of the day (midnight).

Input Engineering

In this assignment you will revisit the German Credit data from Homework 1. The objective is to improve the classification as much as possible via the use of input engineering techniques.

Specifically, the techniques that I would like you to consider are the following:

1. Attribute selection
2. Attribute construction of derived attributes (that is, attributes that are calculated from the existing attributes)
3. Biased random sampling to improve the minority class prediction ("bad" instances)
4. SMOTE to improve the minority class prediction

Along the way you need to make sure that you are using appropriate techniques for evaluating the error.