Exercise 3 TDT4171 Sondre Foslien

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Using the random importance function I got different trees everytime, but I have drawn one of them here in figure 1
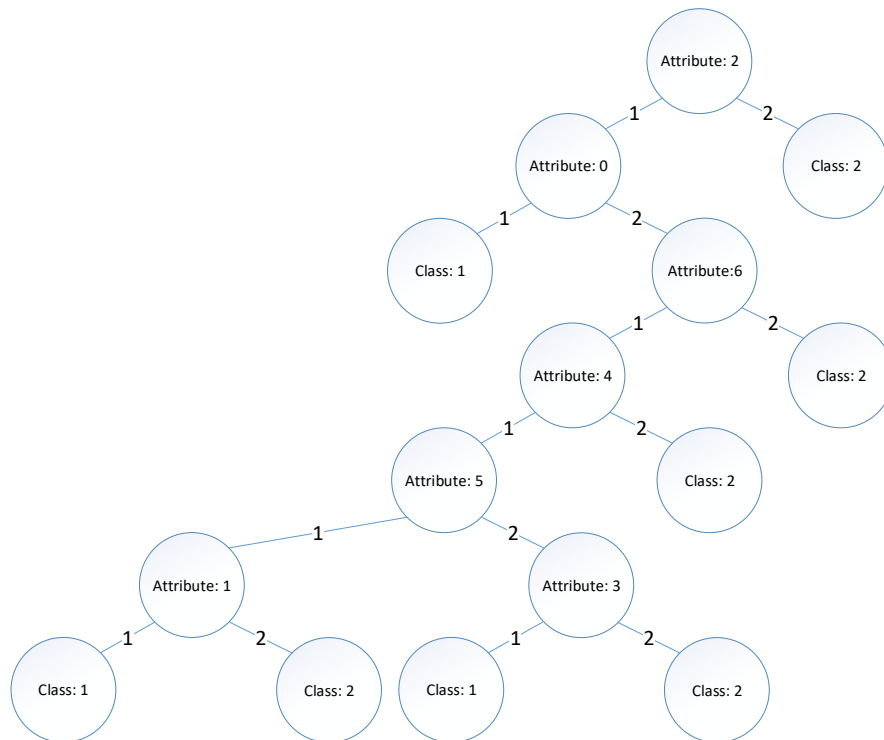

Figure 1:

Using the information gain approach to the importance function gave the tree in figure 2

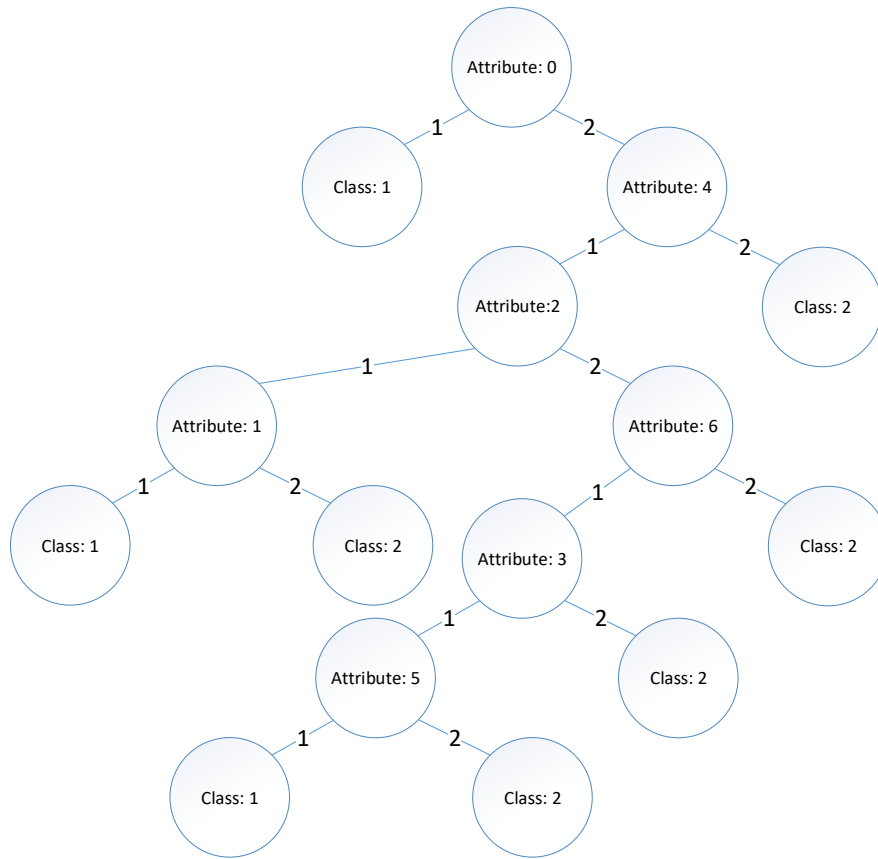When classifying the test-set, the information gain importance function got the

Figure 2:

same result every time, 21/28. The random importance function had varying degrees of success, sometimes seeing results as high as 27/28, sometimes as bad as 7/8. Therefore I would say that the information gain approach is a more reliable importance function, but you might be lucky with the random importance.

When you run the random importance several times you get different results every time. When running the information gain several times you get the exact same result