Project 5 Report

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1. Introduction

- This report includes tables to compare the performance of my implementation of the Balanced Winnow (BW) and Modified Balanced Winnow (MBW), and the one on the paper.

2. Data Cleaning

a. Adult (adults.mff)
    - Used Scaler class to scale the numeric attribute values before training and testing
b. Congress (votes.mff)
    - Removed all the examples with the value 'u' for all the attributes
c. Nursery (nursery.mff)
    - Changed the size of the domain of the class label to two (non-priority and priority)
    - Updated the class labels of all the examples to have a value either non-priority and priority

3. Tables

Table 1. Performance Comparison on Balanced Winnow (BW)

DataSet	BW on Paper	BW on Mine	Difference	v-BW on Paper	v-BW on Mine	Difference
Adult	44.7	76.4	31.7	49.1	87.5	38.4
Congress	93.6	90.2	3.4	95.2	95.0	0.2
Wisc	96.3	95.5	0.8	96.7	96.2	0.5
Nursery	69.1	80.7	11.6	83.1	80.0	3.1

Table 2. Performance Comparison on Modified Balanced Winnow (MBW)

DataSet	MBW on Paper	MBW on Mine	Difference	v-MBW on Paper	v-MBW on Mine	Difference
Adult	25.0	83.5	58.5	19.6	85.6	66.0
Congress	94.2	95.0	0.8	96.0	95.2	0.8
Wisc	96.8	96.8	0.0	97.2	97.2	0.0
Nursery	69.6	80.9	11.3	69.6	77.1	7.5