

Your wekaExperiment example report

2015-11-16

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1 - Experiment: weka

- **Methods:** J48, NaiveBayes, OneR, RandomForest
- **Problems:** anneal, audiology, balance-scale, car, glass, horsecolic, hypothyroid, ionosphere, liver-disorders, lymph, primary-tumor, soybean, vehicle, vote, vowel
- **Parameters:**
 1. featureSelection [no,yes] (instantiated)
- **Outputs:** accuracy, trainingTime

History:

1. Experiment weka loaded from a data set.
2. Parameters 'fold' have been removed using the function 'mean'
3. A set of pairs 'column:[defaultValues]' has been used to subset the experiment: featureSelection:[no]
4. Methods has been instanciated with the parameters: featureSelection

2 - Experiment: weka

- **Methods:** NaiveBayes, J48, RandomForest, OneR
- **Problems:** hypothyroid, liver-disorders, vehicle, car, ionosphere, soybean, vote, anneal, lymph, vowel, audiology, glass, primary-tumor, balance-scale, horsecolic
- **Parameters:**
 1. featureSelection [no,yes]
 2. fold [0,1,2,3,4,5,6,7,8,9]
- **Outputs:** accuracy, trainingTime

History:

1. Experiment weka loaded from a data set.

3 - Experiment: weka

- **Methods:** J48, NaiveBayes, OneR, RandomForest
- **Problems:** anneal, audiology, balance-scale, car, glass, horsecolic, hypothyroid, ionosphere, liver-disorders, lymph, primary-tumor, soybean, vehicle, vote, vowel
- **Parameters:**
 1. nuevoPar [nuevoVal]
 2. featureSelection [no,yes] (instantiated)
- **Outputs:** accuracy, trainingTime

History:

1. Experiment weka loaded from a data set.
2. Parameters 'fold' have been removed using the function 'mean'
3. A set of pairs 'column:[defaultValues]' has been used to subset the experiment:
featureSelection:[no]
4. Methods has been instantiated with the parameters: featureSelection
5. New parameters have been added with default values: nuevoPar:nuevoVal

4 - Friedman Test for output “accuracy”

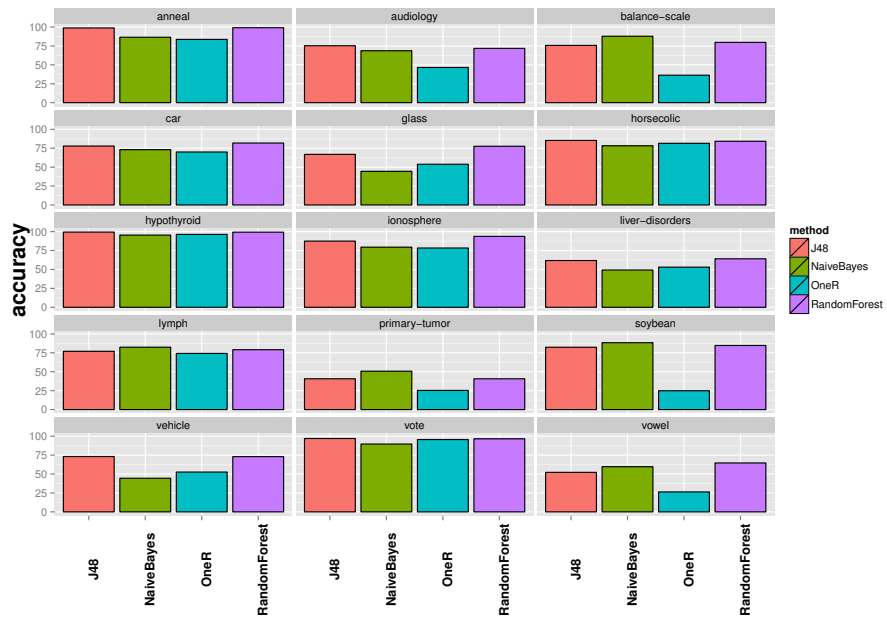
From experiment: **weka**

Friedman test for output accuracy

- H_0 : all methods being equivalent.
- H_1 : at least one method is not equivalent.
- Strategy for ranks: maximize
- Computed Chi squared statistic with 3 degrees of freedom: 20.84
- Computed p-value: 0.000113645596289616
- Outcome for $\alpha = 0.05$: H_0 **Rejected**

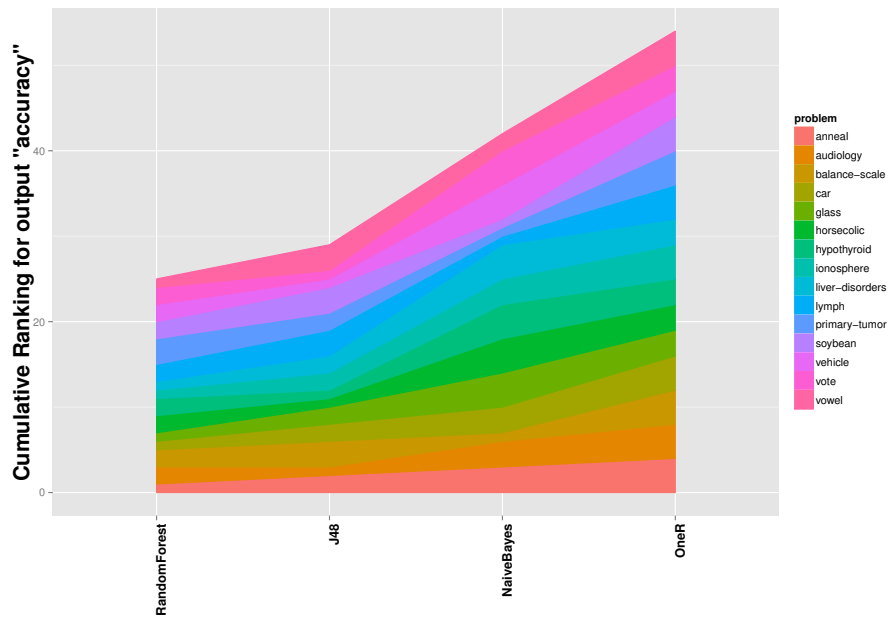
5 - Results for output “accuracy”

From experiment: **weka**



6 - Cumulative Ranking for Var accuracy

From experiment: **weka**



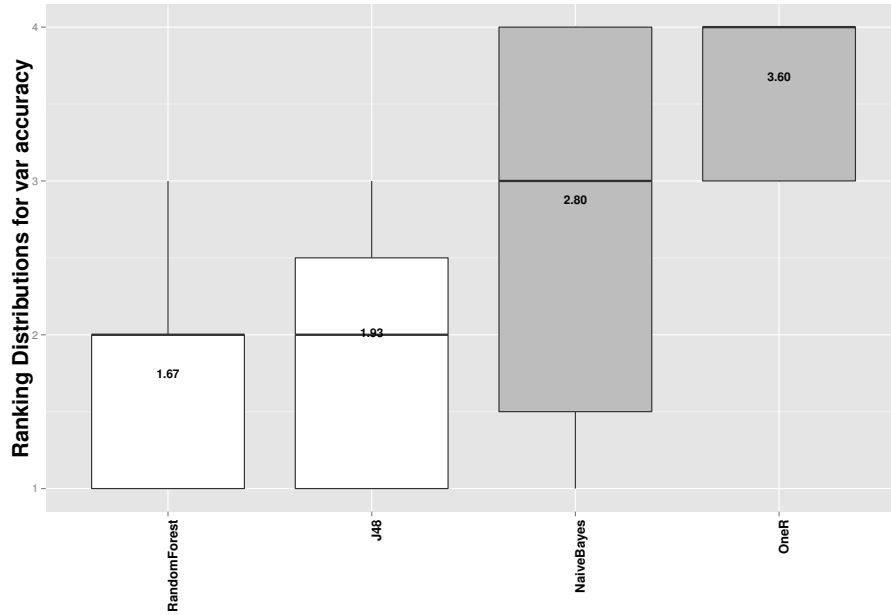
7 - Summary of Control post-hoc test for output “accuracy”

- Experiment source: **weka**
- Test: Control post-hoc test
- Adjust Method: Holm
- $\alpha = 0.05$
- Boldfaced results represent non-rejected hypotheses

method	pvalue	rank	win	tie	loss
RandomForest	-	1.67	-	-	-
J48	5.7161e-01	1.93	9	0	6
NaiveBayes	3.2419e-02	2.80	11	0	4
OneR	1.2329e-04	3.60	15	0	0

8 - Distribution of ranks for output “accuracy”

From experiment: `weka`



9 - Detailed results for output(s) “accuracy”

Experiment source: **weka**

method	anmal	audiology	balance-scale	car	glass	horsecolic	hypothyroid	ionosphere	liver-disorders	lymph	primary-tumor	soybean	vehicle	vote	vowel
J48	98.7753	75.2964	75.7143	77.8861	66.8831	85.3228	99.4167	87.4762	61.8151	77.0476	40.7041	82.4020	73.1555	96.9979	52.2222
NaiveBayes	86.5281	68.6561	87.8469	73.1332	44.5022	78.2357	95.4142	79.4682	49.3025	82.4762	50.7308	88.4165	44.4114	89.6564	59.6979
OneR	83.6330	46.5613	36.3543	70.0981	53.8312	81.5165	96.3415	78.3413	53.0420	74.2857	25.3298	24.9126	52.6050	95.6184	26.3636
RandomForest	99.1074	71.7786	79.7031	81.8780	77.6191	84.2117	99.3106	93.7460	64.0924	79.1428	40.6952	84.7506	73.0434	96.5380	64.6465

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