

dataset	criteria	seed=0	seed=1	seed=2	seed=3	seed=4
abalone	preprocessors	-	-	-	attributeSelection. Ranker	attributeSelection. BestFirst
	predictor	trees.LMT	bayes.BayesNet	functions. MultilayerPerceptron	functions. SimpleLogistic	trees.LMT
	accuracy	25.62	26.02	26.18	25.62	25.94
	invalid/total evaluated pipelines	16/42	90/169	69/157	34/63	53/133
car	preprocessors	attributeSelection. BestFirst	-	attributeSelection. BestFirst	-	-
	predictor	functions.SMO	trees.J48	functions.SMO	trees.LMT	functions.SMO
	accuracy	100.00	96.14	100.00	97.68	97.68
	invalid/total evaluated pipelines	205/357	108/178	197/510	139/295	85/149
convex	preprocessors	-	-	attribute.Center → attribute.PrincipalComponents → instance.PeriodicSampling	crashed	crashed
	predictor	trees.J48	-	meta. ClassificationViaRegression		
	accuracy	62.44	-	50.29		
	invalid/total evaluated pipelines	18/38	2/2	17/28		
gcredit	preprocessors	-	-	-	-	attributeSelection. Ranker
	predictor	bayes.NaiveBayes	functions. MultilayerPerceptron	functions.SMO	bayes.NaiveBayes	functions. Logistic
	accuracy	69.33	50.05	70.33	69.33	73.67
	invalid/total evaluated pipelines	112/307	229/593	208/374	12/66	30/84
wineqw	preprocessors	-	-	crashed	-	-
	predictor	lazy.Kstar	functions.SMO		lazy.Kstar	trees.J48
	accuracy	64.81	59.7		64.33	59.09
	invalid/total evaluated pipelines	203/416	121/260		201/503	36/90

Table 1: Pipeline structure and accuracy in percentage generated by AutoWeka for MCPS using different datasets and seed numbers

dataset	criteria	seed=0	seed=1	seed=2	seed=3	seed=4
abalone	preprocessors	crashed	crashed	crashed	crashed	crashed
	predictor					
	accuracy					
	invalid/ total evaluated pipelines					
car	preprocessors	crashed	crashed	crashed	crashed	crashed
	predictor					
	accuracy					
	invalid/ total evaluated pipelines					
convex	preprocessors	OneHotEncoding →Median →Feature Agglomeration →Quantile Transformer	OneHotEncoding →Median →Feature Agglomeration →Quantile Transformer	OneHotEncoding →Median →Feature Agglomeration →Quantile Transformer	OneHotEncoding →Median →Feature Agglomeration →Quantile Transformer	OneHotEncoding →Median →Feature Agglomeration →Quantile Transformer
	predictor	GradientBoosting	GradientBoosting	GradientBoosting	GradientBoosting	GradientBoosting
	accuracy	83.36	81.84	83.42	82.73	82.65
	invalid/ total evaluated pipelines	2/18	2/15	2/12	2/11	2/14
gcredit	preprocessors	crashed	crashed	crashed	crashed	crashed
	predictor					
	accuracy					
	invalid/ total evaluated pipelines					
wineqw	preprocessors	BalancingWeighting →MostFreqPoly →RobustScaler	BalancingWeighting →MostFreqPoly →RobustScaler	BalancingWeighting →MostFreqPoly →RobustScaler	BalancingWeighting →MostFreqPoly →RobustScaler	BalancingWeighting →MostFreqPoly →RobustScaler
	predictor	Adaboost	Adaboost	Adaboost	Adaboost	Adaboost
	accuracy	65.83	65.83	65.83	65.83	65.83
	invalid/ total evaluated pipelines	0/43	0/24	0/43	0/33	0/33

Table 2: Pipeline structure and accuracy in percentage generated by Auto-sklearn using different datasets and seed numbers