		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
amazon	**preprocessors**	-	-	-	-	attributeSelection. BestFirst
	predictor	bayes.NaiveBayes	-	rules.PART	-	trees.J48
	accuracy	**62.22**	-	34.67	-	21.78
car	**preprocessors**	attributeSelection. BestFirst	-	attributeSelection. BestFirst	-	-
	predictor	functions.SMO	trees.J48	functions.SMO	trees.LMT	functions.SMO
	accuracy	**100**	96.14	**100**	97.68	97.68
convex	**preprocessors**	-	-	attribute.Center → attribute.PrincipalComponents → instance.PeriodicSampling	-	-
	predictor	trees.J48	-	meta. ClassificationViaRegression	-	-
	accuracy	**62.44**	-	50.29	**-**	-
dexter	**preprocessors**	-	-	-	-	-
	predictor	bayes. NaiveBayesMultinomial	-	-	rules.Jrip	-
	accuracy	**89.44**	-	-	86.67	-
dorothea	**preprocessors**	-	-	-	-	-
	predictor	rules.OneR	-	-	-	-
	accuracy	**94.49**	-	-	-	-
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**
gisette	**preprocessors**	attributeSelection.Ranker	-	-	-	-
	predictor	trees.REPTree	-	-	-	-
	accuracy	**93.52**	-	-	-	-
shuttle	**preprocessors**	-	-	-	-	-
	predictor	trees.REPTree	-	trees.RandomTree	-	trees.REPTree
	accuracy	**99.99**	-	99.98	**-**	99.92
wineqw	**preprocessors**	-	-	-	-	-
	predictor	lazy.Kstar	functions.SMO	-	lazy.Kstar	trees.J48
	accuracy	**64.81**	59.7	-	64.33	59.09

Table 4: Pipeline structure and accuracy in percentage generated by AutoWeka for MCPS using different datasets and seed numbers

		seed=0	seed=1	seed=2	seed=3	seed=4
abalone	**preprocessors**	-	-	-	-	-
	predictor	-	-	-	-	-
	accuracy	-	-	-	-	-
amazon	**preprocessors**	-	-	-	-	-
	predictor	-	-	-	-	-
	accuracy	-	-	-	-	-
car	**preprocessors**	-	-	-	-	-
	predictor	-	-	-	-	-
	accuracy	-	-	-	-	-
convex	**preprocessors**	-	-	-	-	-
	predictor	RandomForest	RandomForest	RandomForest	XGBoost	GradientBoosting
	accuracy	74.14	73.78	74.97	**78.89**	78.23
dexter	**preprocessors**	-	-	-	-	-
	predictor	-	MultinomialNB	MultinomialNB	MultinomialNB	MultinomialNB
	accuracy	-	92.78	**93.33**	**93.33**	**93.33**
dorothea	**preprocessors**	-	-		-	-
	predictor	-	RandomForest	DecisionTree	-	RandomForest
	accuracy	-	**95.36**	94.78	-	**95.36**
gcredit	**preprocessors**	-	-	-	-	-
	predictor	-	-	-	-	-
	accuracy	-	-	-	-	-
gisette	**preprocessors**	-	-	-	-	-
	predictor	LogisticRegression	-	-	-	LogisticRegression
	accuracy	**97.29**	-	-	-	97.19
shuttle	**preprocessors**	ZeroCount	-	-	SelectPercentile	-
	predictor	XGBoost	ExtraTrees	RandomForest	RandomForest	GradientBoosting
	accuracy	**99.99**	**99.99**	**99.99**	**99.99**	**99.99**
wineqw	**preprocessors**	PolynomialFeatures	VarianceThreshold → StackingEstimator	StackingEstimator	StackingEstimator	PolynomialFeatures
	predictor	ExtraTrees	RandomForest	ExtraTrees	GradientBoosting	ExtraTrees
	accuracy	**64.26**	58.13	62.70	58.00	58.07

Table 5: Pipeline structure and accuracy in percentage generated by TPOT using different datasets and seed numbers

		seed=0	seed=1	seed=2	seed=3	seed=4
abalone	-	-	-	-	-	-
amazon	-	-	-	-	-	-
car	-	-	-	-	-	-
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
dexter	**preprocessors**	BalancingWeighting →OneHotEncoding →Mean →LinearSvcPrep	BalancingWeighting →OneHotEncoding →Mean →Normalize	BalancingWeighting →OneHotEncoding →Mean →LinearSvcPrep	BalancingWeighting →OneHotEncoding →Mean →Normalize	BalancingWeighting →OneHotEncoding →Mean →Normalize
	predictor	RandomForest	SvmSvc	RandomForest	SvmSvc	SvmSvc
	accuracy	93.33	**96.11**	93.88	95.56	**96.11**
dorothea	-	-	-	-	-	-
gcredit	-	-	-	-	-	-
gisette	**preprocessors**	OneHotEncoding →Mean→SelectRates →RobustScaler	ImputationMostFrequent →SelectPercentile →Standardize	OneHotEncoding →Mean →Standardize	OneHotEncoding →Mean →Standardize	OneHotEncoding →Mean →Standardize
	predictor	GradientBoosting	GradientBoosting	RandomForest	RandomForest	RandomForest
	accuracy	**97.9**	97.76	97.57	97.48	97.1
shuttle	**preprocessors**	BalancingWeighting →OneHotEncoding →Mean →Polynomial	BalancingWeighting →OneHotEncoding →Mean →Polynomial	BalancingWeighting →OneHotEncoding →Mean →Polynomial	BalancingWeighting →OneHotEncoding →Mean →Standardize	BalancingWeighting →OneHotEncoding →Mean →Polynomial
	predictor	GradientBoosting	GradientBoosting	GradientBoosting	GradientBoosting	GradientBoosting
	accuracy	**99.99**	99.98	**99.99**	**99.99**	**99.99**
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**

Table 6: Pipeline structure and accuracy in percentage generated by Auto-sklearn using different datasets and seed numbers