Appendix report on AUTO-ML experiments

Student Name -> Provost Simon. **Professor Name** -> Alex A. Freitas.

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Param name	Param value
balancing:strategy	weighting
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	standardize
feature_preprocessor:choice	feature_agglomeration
classifier:mlp:activation	relu
classifier:mlp:alpha	0.0004223379883196605
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	3
classifier:mlp:learning_rate_init	0.0006638270125626774
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	115
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.041276341769720205
feature_preprocessor:feature_agglomeration:affinity	euclidean
feature_preprocessor:feature_agglomeration:linkage	ward
feature_preprocessor:feature_agglomeration:n_clusters	267
feature_preprocessor:feature_agglomeration:pooling_func	median

Table 1: Breast-1

Param name	Param value
balancing:strategy	weighting
balancing:strategy	weighting
classifier:choice	qda
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	quantile_transformer
feature_preprocessor:choice	fast_ica
classifier:qda:reg_param	0.061791893979524226
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.0005294747180296636
data_preprocessing:numerical_transformer:rescaling:quantile_transformer:n_quantiles	1148
data_preprocessing:numerical_transformer:rescaling:quantile_transformer:output_distribution	normal
feature_preprocessor:fast_ica:algorithm	parallel
feature_preprocessor:fast_ica:fun	logcosh
feature_preprocessor:fast_ica:whiten	False

Table 2: Breast-2

Param name	Param value
balancing:strategy	weighting
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	standardize
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:mlp:activation	relu
classifier:mlp:alpha	6.289915292252595e-07
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	1
classifier:mlp:learning_rate_init	0.00017173569700089028
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	32
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.019196815845866824
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	True
feature_preprocessor:extra_trees_preproc_for_classification:criterion	entropy
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.6298488871124417
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	1
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	19
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 3: Breast-3

Param name	Param value
balancing:strategy	none
classifier:choice	random_forest
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	random_trees_embedding
classifier:random_forest:bootstrap	False
classifier:random_forest:criterion	entropy
classifier:random_forest:max_depth	None
classifier:random_forest:max_features	0.6442761357955407
classifier:random_forest:max_leaf_nodes	None
classifier:random_forest:min_impurity_decrease	0.0
classifier:random_forest:min_samples_leaf	6
classifier:random_forest:min_samples_split	5
classifier:random_forest:min_weight_fraction_leaf	0.0
data_preprocessing:categorical_transformer:category_coalescence:minority_coalescer:minimum_fraction	0.0100000000000000004
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7465503075717674
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.22362136842354222
feature_preprocessor:random_trees_embedding:bootstrap	False
feature_preprocessor:random_trees_embedding:max_depth	3
feature_preprocessor:random_trees_embedding:max_leaf_nodes	None
feature_preprocessor:random_trees_embedding:min_samples_leaf	13
feature_preprocessor:random_trees_embedding:min_samples_split	18
feature_preprocessor:random_trees_embedding:min_weight_fraction_leaf	1.0
feature_preprocessor:random_trees_embedding:n_estimators	43

Table 4: Breast-4

Param name	Param value
balancing:strategy	weighting
classifier:choice	random_forest
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	random_trees_embedding
classifier:random_forest:bootstrap	False
classifier:random_forest:criterion	gini
classifier:random_forest:max_depth	None
classifier:random_forest:max_features	0.7695256395191846
classifier:random_forest:max_leaf_nodes	None
classifier:random_forest:min_impurity_decrease	0.0
classifier:random_forest:min_samples_leaf	14
classifier:random_forest:min_samples_split	5
classifier:random_forest:min_weight_fraction_leaf	0.0
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.26156745411840177
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.8676877458361545
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.1292957198801471
feature_preprocessor:random_trees_embedding:bootstrap	True
feature_preprocessor:random_trees_embedding:max_depth	4
feature_preprocessor:random_trees_embedding:max_leaf_nodes	None
feature_preprocessor:random_trees_embedding:min_samples_leaf	2
feature_preprocessor:random_trees_embedding:min_samples_split	9
feature_preprocessor:random_trees_embedding:min_weight_fraction_leaf	1.0
feature_preprocessor:random_trees_embedding:n_estimators	81

Table 5: Breast-5

Param name	Param value
balancing:strategy	weighting
classifier:choice	libsvm_svc
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	feature_agglomeration
classifier:libsvm_svc:C	1.3186584623326854
classifier:libsvm_svc:gamma	0.00044604225135753516
classifier:libsvm_svc:kernel	poly
classifier:libsvm_svc:max_iter	-1
classifier:libsvm_svc:shrinking	True
classifier:libsvm_svc:tol	0.000911594007548699
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.8615703407178269
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.12078933012009306
feature_preprocessor:feature_agglomeration:affinity	manhattan
feature_preprocessor:feature_agglomeration:linkage	complete
feature_preprocessor:feature_agglomeration:n_clusters	298
feature_preprocessor:feature_agglomeration:pooling_func	max
classifier:libsvm_svc:coef0	0.07819885850672503
classifier:libsvm_svc:degree	5

Table 6: Heart-failure-1

Param name	Param value
balancing:strategy	weighting
balancing:strategy	weighting
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	quantile_transformer
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:mlp:activation	tanh
classifier:mlp:alpha	4.950212368922522e-05
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	3
classifier:mlp:learning_rate_init	0.0016335505280123523
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	28
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
data_preprocessing:numerical_transformer:rescaling:quantile_transformer:n_quantiles	1690
$data_preprocessing: numerical_transformer: rescaling: quantile_transformer: output_distribution$	uniform
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	False
feature_preprocessor:extra_trees_preproc_for_classification:criterion	gini
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.5786442320637193
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	20
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	14
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0

Table 7: Heart-failure-2

Param name	Param value
balancing:strategy	weighting
classifier:choice	k_nearest_neighbors
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	quantile_transformer
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:k_nearest_neighbors:n_neighbors	18
classifier:k_nearest_neighbors:p	1
classifier:k_nearest_neighbors:weights	uniform
data_preprocessing:numerical_transformer:rescaling:quantile_transformer:n_quantiles	1496
$data_preprocessing:numerical_transformer:rescaling:quantile_transformer:output_distribution$	uniform
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	True
feature_preprocessor:extra_trees_preproc_for_classification:criterion	entropy
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.5100599802508429
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	15
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	16
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 8: Heart-failure-3

Param name	Param value
balancing:strategy	weighting
classifier:choice	random_forest
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	power_transformer
feature_preprocessor:choice	pca
classifier:random_forest:bootstrap	False
classifier:random_forest:criterion	entropy
classifier:random_forest:max_depth	None
classifier:random_forest:max_features	0.3834622461790784
classifier:random_forest:max_leaf_nodes	None
classifier:random_forest:min_impurity_decrease	0.0
classifier:random_forest:min_samples_leaf	19
classifier:random_forest:min_samples_split	5
classifier:random_forest:min_weight_fraction_leaf	0.0
feature_preprocessor:pca:keep_variance	0.9735824886658903
feature_preprocessor:pca:whiten	True

Table 9: Heart-failure-4

Param name	Param value
balancing:strategy	none
classifier:choice	k_nearest_neighbors
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:k_nearest_neighbors:n_neighbors	1
classifier:k_nearest_neighbors:p	2
classifier:k_nearest_neighbors:weights	uniform
data_preprocessing:categorical_transformer:category_coalescence:minority_coalescer:minimum_fraction	0.025014793064796603
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.75
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.25
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	True
feature_preprocessor:extra_trees_preproc_for_classification:criterion	gini
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.9929881254946676
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	8
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	7
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 10: Heart-failure-5

Param name	Param value
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	select_rates_classification
classifier:gradient_boosting:early_stop	train
classifier:gradient_boosting:l2_regularization	5.540602061297802e-10
classifier:gradient_boosting:learning_rate	0.016629242218617307
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	681
classifier:gradient_boosting:min_samples_leaf	27
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
data_preprocessing:categorical_transformer:category_coalescence:minority_coalescer:minimum_fraction	0.00849025188292312
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7500414374466375
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.07130349189804165
feature_preprocessor:select_rates_classification:alpha	0.16192195966955664
feature_preprocessor:select_rates_classification:score_func	f_classif
classifier:gradient_boosting:n_iter_no_change	20
feature_preprocessor:select_rates_classification:mode	fdr

Table 11: Obesity-1

Param name	Param value
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	polynomial
classifier:gradient_boosting:early_stop	train
classifier:gradient_boosting:l2_regularization	4.773398203581013e-06
classifier:gradient_boosting:learning_rate	0.053331170020548144
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	11
classifier:gradient_boosting:min_samples_leaf	24
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
data_preprocessing:categorical_transformer:category_coalescence:minority_coalescer:minimum_fraction	0.050289424280298894
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7602691805828513
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.2607657764645232
feature_preprocessor:polynomial:degree	2
feature_preprocessor:polynomial:include_bias	True
feature_preprocessor:polynomial:interaction_only	False
classifier:gradient_boosting:n_iter_no_change	18

Table 12: Obesity-2

Param name	Param value
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	power_transformer
feature_preprocessor:choice	no_preprocessing
classifier:gradient_boosting:early_stop	off
classifier:gradient_boosting:l2_regularization	4.118887019787786e-10
classifier:gradient_boosting:learning_rate	0.2815497925876392
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	39
classifier:gradient_boosting:min_samples_leaf	22
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
$\begin{tabular}{ll} data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction \\ \end{tabular}$	0.019757431822083282

Table 13: Obesity-3

Param name	Param value
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	polynomial
classifier:gradient_boosting:early_stop	off
classifier:gradient_boosting:l2_regularization	0.004999908186359268
classifier:gradient_boosting:learning_rate	0.08220403787891753
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	69
classifier:gradient_boosting:min_samples_leaf	139
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
data_preprocessing:categorical_transformer:category_coalescence:minority_coalescer:minimum_fraction	0.0002955937400304694
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.8815763794273677
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.15205640294658754
feature_preprocessor:polynomial:degree	2
feature_preprocessor:polynomial:include_bias	False
feature_preprocessor:polynomial:interaction_only	False

Table 14: Obesity-4

Param name	Param value
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	polynomial
classifier:gradient_boosting:early_stop	train
classifier:gradient_boosting:l2_regularization	2.6392168195779618e-08
classifier:gradient_boosting:learning_rate	0.45559898352545136
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	11
classifier:gradient_boosting:min_samples_leaf	5
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.011269569115966995
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7764007092839482
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.18224611661624607
feature_preprocessor:polynomial:degree	2
feature_preprocessor:polynomial:include_bias	True
feature_preprocessor:polynomial:interaction_only	False
classifier:gradient_boosting:n_iter_no_change	10

Table 15: Obesity-5

Param name	Param value
balancing:strategy	none
classifier:choice	sgd
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	standardize
feature_preprocessor:choice	select_rates_classification
classifier:sgd:alpha	2.6673093430964056e-05
classifier:sgd:average	True
classifier:sgd:fit_intercept	True
classifier:sgd:learning_rate	optimal
classifier:sgd:loss	perceptron
classifier:sgd:penalty	elasticnet
classifier:sgd:tol	6.575721780166767e-05
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.012742285933998771
feature_preprocessor:select_rates_classification:alpha	0.2968527147166261
feature_preprocessor:select_rates_classification:score_func	chi2
classifier:sgd:l1_ratio	0.6091772199866065
feature_preprocessor:select_rates_classification:mode	fwe

 Table 16:
 Thoracic-Surgery-1

Param name	Param value
balancing:strategy	none
classifier:choice	bernoulli_nb
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	minmax
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:bernoulli_nb:alpha	0.04182741127911957
classifier:bernoulli_nb:fit_prior	True
data_preprocessing:categorical_transformer:category_coalescence:minority_coalescer:minimum_fraction	0.0001939200751730527
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	False
feature_preprocessor:extra_trees_preproc_for_classification:criterion	gini
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.8613065880330555
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	8
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	7
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 17: Thoracic-Surgery-2

Param name	Param value
balancing:strategy	weighting
classifier:choice	bernoulli_nb
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	liblinear_svc_preprocessor
classifier:bernoulli_nb:alpha	0.014828155751055698
classifier:bernoulli_nb:fit_prior	True
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.0019097668947955675
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.8897525512196269
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.23657030271793142
feature_preprocessor:liblinear_svc_preprocessor:C	13.595794473014832
feature_preprocessor:liblinear_svc_preprocessor:dual	False
feature_preprocessor:liblinear_svc_preprocessor:fit_intercept	True
feature_preprocessor:liblinear_svc_preprocessor:intercept_scaling	1
feature_preprocessor:liblinear_svc_preprocessor:loss	squared_hinge
feature_preprocessor:liblinear_svc_preprocessor:multi_class	ovr
feature_preprocessor:liblinear_svc_preprocessor:penalty	11
feature_preprocessor:liblinear_svc_preprocessor:tol	0.0005738799491725154

 Table 18: Thoracic-Surgery-3

Param name	Param value
balancing:strategy	none
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	normalize
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:gradient_boosting:early_stop	valid
classifier:gradient_boosting:l2_regularization	5.759216242427118e-07
classifier:gradient_boosting:learning_rate	0.14515873247977112
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	11
classifier:gradient_boosting:min_samples_leaf	1
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.005673642203881703
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	True
feature_preprocessor:extra_trees_preproc_for_classification:criterion	gini
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.33685147694715717
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	1
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	5
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100
classifier:gradient_boosting:n_iter_no_change	18
classifier:gradient_boosting:validation_fraction	0.06967552984405034

 Table 19: Thoracic-Surgery-4

Param name	Param value
balancing:strategy	none
classifier:choice	decision_tree
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	normalize
feature_preprocessor:choice	select_percentile_classification
classifier:decision_tree:criterion	gini
classifier:decision_tree:max_depth_factor	1.297268989691186
classifier:decision_tree:max_features	1.0
classifier:decision_tree:max_leaf_nodes	None
classifier:decision_tree:min_impurity_decrease	0.0
classifier:decision_tree:min_samples_leaf	4
classifier:decision_tree:min_samples_split	5
classifier:decision_tree:min_weight_fraction_leaf	0.0
data_preprocessing:categorical_transformer:category_coalescence:minority_coalescer:minimum_fraction	0.04950551694825798
feature_preprocessor:select_percentile_classification:percentile	49.478275930295304
feature_preprocessor:select_percentile_classification:score_func	mutual_info

Table 20: Thoracic-Surgery-5

Param name	Param value
balancing:strategy	none
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	standardize
feature_preprocessor:choice	feature_agglomeration
classifier:mlp:activation	tanh
classifier:mlp:alpha	0.00016250228297296022
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	3
classifier:mlp:learning_rate_init	0.00016301985342367467
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	109
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.0073153595986416966
feature_preprocessor:feature_agglomeration:affinity	cosine
feature_preprocessor:feature_agglomeration:linkage	complete
feature_preprocessor:feature_agglomeration:n_clusters	198
feature_preprocessor:feature_agglomeration:pooling_func	max

 Table 21:
 diabetic-retinopathy-1

Param name	Param value
balancing:strategy	weighting
balancing:strategy	weighting
classifier:choice	random_forest
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	normalize
feature_preprocessor:choice	polynomial
classifier:random_forest:bootstrap	True
classifier:random_forest:criterion	entropy
classifier:random_forest:max_depth	None
classifier:random_forest:max_features	0.49345015681257887
classifier:random_forest:max_leaf_nodes	None
classifier:random_forest:min_impurity_decrease	0.0
classifier:random_forest:min_samples_leaf	1
classifier:random_forest:min_samples_split	2
classifier:random_forest:min_weight_fraction_leaf	0.0
data_preprocessing:categorical_transformer:category_coalescence:minority_coalescer:minimum_fraction	0.0100000000000000004
feature_preprocessor:polynomial:degree	2
feature_preprocessor:polynomial:include_bias	True
feature_preprocessor:polynomial:interaction_only	False

 Table 22:
 diabetic-retinopathy-2

Param name	Param value
balancing:strategy	none
classifier:choice	libsvm_svc
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	quantile_transformer
feature_preprocessor:choice	fast_ica
classifier:libsvm_svc:C	837.3150796221995
classifier:libsvm_svc:gamma	0.009230979094428897
classifier:libsvm_svc:kernel	poly
classifier:libsvm_svc:max_iter	-1
classifier:libsvm_svc:shrinking	False
classifier:libsvm_svc:tol	0.00019102858708133416
data_preprocessing:numerical_transformer:rescaling:quantile_transformer:n_quantiles	991
data_preprocessing:numerical_transformer:rescaling:quantile_transformer:output_distribution	uniform
feature_preprocessor:fast_ica:algorithm	deflation
feature_preprocessor:fast_ica:fun	logcosh
feature_preprocessor:fast_ica:whiten	True
classifier:libsvm_svc:coef0	-0.9785769893770769
classifier:libsvm_svc:degree	3
feature_preprocessor:fast_ica:n_components	17

 Table 23:
 diabetic-retinopathy-3

Param name	Param value
balancing:strategy	weighting
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	standardize
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:mlp:activation	relu
classifier:mlp:alpha	0.013616617857009084
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	1
classifier:mlp:learning_rate_init	0.0011645496375006228
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	262
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.016822627499152545
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	True
feature_preprocessor:extra_trees_preproc_for_classification:criterion	gini
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.7530025196864862
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	9
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	13
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 24: diabetic-retinopathy-4

Param name	Param value
balancing:strategy	weighting
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:mlp:activation	tanh
classifier:mlp:alpha	3.644762484888035e-07
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	1
classifier:mlp:learning_rate_init	0.00014987563208782376
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	92
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.003806764941633366
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7429360351619242
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.24301484102478718
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	True
feature_preprocessor:extra_trees_preproc_for_classification:criterion	gini
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.6968762491393237
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	12
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	10
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 25: diabetic-retinopathy-5

Param name	Param value
balancing:strategy	none
balancing:strategy	none
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	standardize
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:mlp:activation	tanh
classifier:mlp:alpha	3.0136961495062173e-06
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	1
classifier:mlp:learning_rate_init	0.0014806367985218704
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	58
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.013516753483496548
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	True
feature_preprocessor:extra_trees_preproc_for_classification:criterion	entropy
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.7620367019850975
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	10
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	13
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 26: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	random_forest
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	fast_ica
classifier:random_forest:bootstrap	False
classifier:random_forest:criterion	gini
classifier:random_forest:max_depth	None
classifier:random_forest:max_features	0.33592461018085756
classifier:random_forest:max_leaf_nodes	None
classifier:random_forest:min_impurity_decrease	0.0
classifier:random_forest:min_samples_leaf	1
classifier:random_forest:min_samples_split	4
classifier:random_forest:min_weight_fraction_leaf	0.0
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.000865568273154133
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7402051728063296
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.25
feature_preprocessor:fast_ica:algorithm	parallel
feature_preprocessor:fast_ica:fun	exp
feature_preprocessor:fast_ica:whiten	True
feature_preprocessor:fast_ica:n_components	154

Table 27: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	power_transformer
feature_preprocessor:choice	fast_ica
classifier:mlp:activation	relu
classifier:mlp:alpha	0.010546766380891874
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	3
classifier:mlp:learning_rate_init	0.00013435421984462189
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	126
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.010442880556298939
feature_preprocessor:fast_ica:algorithm	deflation
feature_preprocessor:fast_ica:fun	cube
feature_preprocessor:fast_ica:whiten	True
feature_preprocessor:fast_ica:n_components	88

Table 28: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	none
classifier:choice	libsvm_svc
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	quantile_transformer
feature_preprocessor:choice	fast_ica
classifier:libsvm_svc:C	22476.27967249346
classifier:libsvm_svc:gamma	0.0013668476516367344
classifier:libsvm_svc:kernel	sigmoid
classifier:libsvm_svc:max_iter	-1
classifier:libsvm_svc:shrinking	True
classifier:libsvm_svc:tol	0.0003164779331113468
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.0006360532967817255
data_preprocessing:numerical_transformer:rescaling:quantile_transformer:n_quantiles	981
data_preprocessing:numerical_transformer:rescaling:quantile_transformer:output_distribution	uniform
feature_preprocessor:fast_ica:algorithm	parallel
feature_preprocessor:fast_ica:fun	exp
feature_preprocessor:fast_ica:whiten	True
classifier:libsvm_svc:coef0	0.013829892421996393
feature_preprocessor:fast_ica:n_components	17

Table 29: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	none
classifier:choice	passive_aggressive
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	power_transformer
feature_preprocessor:choice	nystroem_sampler
classifier:passive_aggressive:C	3.504745162112378
classifier:passive_aggressive:average	True
classifier:passive_aggressive:fit_intercept	True
classifier:passive_aggressive:loss	squared_hinge
classifier:passive_aggressive:tol	3.564319470838793e-05
$lem:control_data_preprocessing:categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.0026630879754488243
feature_preprocessor:nystroem_sampler:kernel	cosine
feature_preprocessor:nystroem_sampler:n_components	164

Table 30: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	none
classifier:choice	liblinear_svc
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	normalize
feature_preprocessor:choice	kitchen_sinks
classifier:liblinear_svc:C	1912.6102554991123
classifier:liblinear_svc:dual	False
classifier:liblinear_svc:fit_intercept	True
classifier:liblinear_svc:intercept_scaling	1
classifier:liblinear_svc:loss	squared_hinge
classifier:liblinear_svc:multi_class	ovr
classifier:liblinear_svc:penalty	12
classifier:liblinear_svc:tol	0.0008747927725254777
data_preprocessing:categorical_transformer:category_coalescence:minority_coalescer:minimum_fraction	0.0036661257643298257
feature_preprocessor:kitchen_sinks:gamma	0.005541758623607619
feature_preprocessor:kitchen_sinks:n_components	100

Table 31: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	none
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	standardize
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:mlp:activation	tanh
classifier:mlp:alpha	2.558367562176497e-06
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	2
classifier:mlp:learning_rate_init	0.0002525818922781705
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	136
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.1625027515851791
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	False
feature_preprocessor:extra_trees_preproc_for_classification:criterion	entropy
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.12821953553928941
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	9
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	18
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 32: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	none
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	fast_ica
classifier:mlp:activation	relu
classifier:mlp:alpha	0.00012906739579308693
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	1
classifier:mlp:learning_rate_init	0.001213195447069635
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	245
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.012277606134378819
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7524820823309201
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.25422702191174495
feature_preprocessor:fast_ica:algorithm	parallel
feature_preprocessor:fast_ica:fun	logcosh
feature_preprocessor:fast_ica:whiten	True
feature_preprocessor:fast_ica:n_components	16

Table 33: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	none
classifier:choice	lda
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	most_frequent
data_preprocessing:numerical_transformer:rescaling:choice	normalize
feature_preprocessor:choice	kernel_pca
classifier:lda:shrinkage	auto
classifier:lda:tol	1.5139135908118525e-05
feature_preprocessor:kernel_pca:kernel	poly
feature_preprocessor:kernel_pca:n_components	50
feature_preprocessor:kernel_pca:coef0	0.057651967632558865
feature_preprocessor:kernel_pca:degree	3
feature_preprocessor:kernel_pca:gamma	0.0035172938501532077

Table 34: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	none
classifier:choice	mlp
data_preprocessing:categorical_transformer:categorical_encoding:choice	one_hot_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:mlp:activation	relu
classifier:mlp:alpha	0.08505938840339394
classifier:mlp:batch_size	auto
classifier:mlp:beta_1	0.9
classifier:mlp:beta_2	0.999
classifier:mlp:early_stopping	train
classifier:mlp:epsilon	1e-08
classifier:mlp:hidden_layer_depth	1
classifier:mlp:learning_rate_init	0.0005611576250614035
classifier:mlp:n_iter_no_change	32
classifier:mlp:num_nodes_per_layer	37
classifier:mlp:shuffle	True
classifier:mlp:solver	adam
classifier:mlp:tol	0.0001
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.008215192959639532
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.969672370108094
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.28354560528597655
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	True
feature_preprocessor:extra_trees_preproc_for_classification:criterion	gini
feature_preprocessor:extra_trees_preproc_for_classification:max_depth	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.26754750999714916
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	5
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	6
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 35: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	power_transformer
feature_preprocessor:choice	liblinear_svc_preprocessor
classifier:gradient_boosting:early_stop	off
classifier:gradient_boosting:l2_regularization	1.3346669897233486e-10
classifier:gradient_boosting:learning_rate	0.03152730675640789
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	291
classifier:gradient_boosting:min_samples_leaf	27
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
feature_preprocessor:liblinear_svc_preprocessor:C	2.429396285807153
feature_preprocessor:liblinear_svc_preprocessor:dual	False
feature_preprocessor:liblinear_svc_preprocessor:fit_intercept	True
feature_preprocessor:liblinear_svc_preprocessor:intercept_scaling	1
feature_preprocessor:liblinear_svc_preprocessor:loss	squared_hinge
feature_preprocessor:liblinear_svc_preprocessor:multi_class	ovr
feature_preprocessor:liblinear_svc_preprocessor:penalty	11
feature_preprocessor:liblinear_svc_preprocessor:tol	0.004637612713316916

Table 36: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	libsvm_svc
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	select_rates_classification
classifier:libsvm_svc:C	566.6840052213279
classifier:libsvm_svc:gamma	0.0019647850141763412
classifier:libsvm_svc:kernel	rbf
classifier:libsvm_svc:max_iter	-1
classifier:libsvm_svc:shrinking	True
classifier:libsvm_svc:tol	0.0012292213570589683
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7590668743404532
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.2382188278316001
feature_preprocessor:select_rates_classification:alpha	0.38609551513581725
feature_preprocessor:select_rates_classification:score_func	f_classif
feature_preprocessor:select_rates_classification:mode	fdr

Table 37: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	libsvm_svc
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	polynomial
classifier:libsvm_svc:C	6505.4924577406855
classifier:libsvm_svc:gamma	0.0006074416872293961
classifier:libsvm_svc:kernel	poly
classifier:libsvm_svc:max_iter	-1
classifier:libsvm_svc:shrinking	True
classifier:libsvm_svc:tol	0.0009308867112882096
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7732405392203467
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.1500113868661228
feature_preprocessor:polynomial:degree	2
feature_preprocessor:polynomial:include_bias	True
feature_preprocessor:polynomial:interaction_only	False
classifier:libsvm_svc:coef0	-0.6333837418430242
classifier:libsvm_svc:degree	2

Table 38: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	none
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	polynomial
classifier:gradient_boosting:early_stop	train
classifier:gradient_boosting:l2_regularization	7.251003784976175e-10
classifier:gradient_boosting:learning_rate	0.021904376801893864
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	13
classifier:gradient_boosting:min_samples_leaf	25
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7070253912764541
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.2600158290858444
feature_preprocessor:polynomial:degree	2
feature_preprocessor:polynomial:include_bias	False
feature_preprocessor:polynomial:interaction_only	True
classifier:gradient_boosting:n_iter_no_change	10

Table 39: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	polynomial
classifier:gradient_boosting:early_stop	train
classifier:gradient_boosting:l2_regularization	0.0009075732041845809
classifier:gradient_boosting:learning_rate	0.0847679148804484
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	124
classifier:gradient_boosting:min_samples_leaf	25
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.8375275468198223
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.2264885913461948
feature_preprocessor:polynomial:degree	3
feature_preprocessor:polynomial:include_bias	True
feature_preprocessor:polynomial:interaction_only	False
classifier:gradient_boosting:n_iter_no_change	14

Table 40: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	polynomial
classifier:gradient_boosting:early_stop	off
classifier:gradient_boosting:l2_regularization	1.2675536600447819e-10
classifier:gradient_boosting:learning_rate	0.06250681383314831
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	4
classifier:gradient_boosting:min_samples_leaf	29
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7998509950514749
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.24320191705870936
feature_preprocessor:polynomial:degree	2
feature_preprocessor:polynomial:include_bias	False
feature_preprocessor:polynomial:interaction_only	False

Table 41: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	extra_trees_preproc_for_classification
classifier:gradient_boosting:early_stop	off
classifier:gradient_boosting:l2_regularization	1e-10
classifier:gradient_boosting:learning_rate	0.16731650635122736
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	26
classifier:gradient_boosting:min_samples_leaf	14
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.0077640206470712715
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7655169184871327
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.23934832754654853
feature_preprocessor:extra_trees_preproc_for_classification:bootstrap	False
feature_preprocessor:extra_trees_preproc_for_classification:criterion	gini
$feature_preprocessor: extra_trees_preproc_for_classification: max_depth$	None
feature_preprocessor:extra_trees_preproc_for_classification:max_features	0.7256612266789291
feature_preprocessor:extra_trees_preproc_for_classification:max_leaf_nodes	None
feature_preprocessor:extra_trees_preproc_for_classification:min_impurity_decrease	0.0
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_leaf	1
feature_preprocessor:extra_trees_preproc_for_classification:min_samples_split	4
feature_preprocessor:extra_trees_preproc_for_classification:min_weight_fraction_leaf	0.0
feature_preprocessor:extra_trees_preproc_for_classification:n_estimators	100

Table 42: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	gradient_boosting
data_preprocessing:categorical_transformer:categorical_encoding:choice	encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	minority_coalescer
data_preprocessing:numerical_transformer:imputation:strategy	mean
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	polynomial
classifier:gradient_boosting:early_stop	train
classifier:gradient_boosting:l2_regularization	1.985374061174202e-10
classifier:gradient_boosting:learning_rate	0.016865201664460684
classifier:gradient_boosting:loss	auto
classifier:gradient_boosting:max_bins	255
classifier:gradient_boosting:max_depth	None
classifier:gradient_boosting:max_leaf_nodes	24
classifier:gradient_boosting:min_samples_leaf	32
classifier:gradient_boosting:scoring	loss
classifier:gradient_boosting:tol	1e-07
$data_preprocessing: categorical_transformer: category_coalescence: minority_coalescer: minimum_fraction$	0.022334681891724814
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7963245020113036
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.27231295803982
feature_preprocessor:polynomial:degree	2
feature_preprocessor:polynomial:include_bias	True
feature_preprocessor:polynomial:interaction_only	False
classifier:gradient_boosting:n_iter_no_change	16

Table 43: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	libsvm_svc
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	select_rates_classification
classifier:libsvm_svc:C	566.6840052213279
classifier:libsvm_svc:gamma	0.0019647850141763412
classifier:libsvm_svc:kernel	rbf
classifier:libsvm_svc:max_iter	-1
classifier:libsvm_svc:shrinking	True
classifier:libsvm_svc:tol	0.0012292213570589683
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7590668743404532
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.2382188278316001
feature_preprocessor:select_rates_classification:alpha	0.38609551513581725
feature_preprocessor:select_rates_classification:score_func	f_classif
feature_preprocessor:select_rates_classification:mode	fdr

Table 44: Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
balancing:strategy	none
balancing:strategy	weighting
classifier:choice	libsvm_svc
data_preprocessing:categorical_transformer:categorical_encoding:choice	no_encoding
data_preprocessing:categorical_transformer:category_coalescence:choice	no_coalescense
data_preprocessing:numerical_transformer:imputation:strategy	median
data_preprocessing:numerical_transformer:rescaling:choice	robust_scaler
feature_preprocessor:choice	select_rates_classification
classifier:libsvm_svc:C	566.6840052213279
classifier:libsvm_svc:gamma	0.0019647850141763412
classifier:libsvm_svc:kernel	rbf
classifier:libsvm_svc:max_iter	-1
classifier:libsvm_svc:shrinking	True
classifier:libsvm_svc:tol	0.0012292213570589683
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_max	0.7590668743404532
data_preprocessing:numerical_transformer:rescaling:robust_scaler:q_min	0.2382188278316001
feature_preprocessor:select_rates_classification:alpha	0.38609551513581725
feature_preprocessor:select_rates_classification:score_func	f_classif
feature_preprocessor:select_rates_classification:mode	fdr

Table 45: ObesityDataset-10 - Param name depicts an hyper parameter available within the algorithm Param value depicts the value set to this parameter by the Auto-ML pipeline.

Param name	Param value
Classifier chosen	weka.classifiers.functions.Logistic
Classifier arguments	[-R, 1.4352634476412934E-8]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-B, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-L]

Table 46: autoweka-diabetic-fold-1

Param name	Param value
Classifier chosen	weka.classifiers.meta.Bagging
Classifier arguments	[-P, 77, -I, 127, -S, 1, -W, weka.classifiers.functions.SGD, -, -F, 1, -L, 1.5891309821796528E-4, -R, 1.0721996069074824E-6, -N, -M]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	0
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	0

Table 47: autoweka-diabetic-fold-2

Param name	Param value
Classifier chosen	weka.classifiers.meta.Bagging
Classifier arguments	[-P. 77, -I, 127, -S, 1, -W, weka.classifiers.functions.SGD, -, -F, 1, -L, 1.5891309821796528E-4, -R, 1.0721996069074824E-6, -N, -M]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	0
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	0

Table 48: autoweka-diabetic-fold-3

Param name	Param value
Classifier chosen	weka.classifiers.functions.Logistic
Classifier arguments	[-R, 1.3125546009206435E-6]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	[]
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	[]

Table 49: autoweka-diabetic-fold-4

Param name	Param value	
Classifier chosen	weka.classifiers.lazy.IWL	
Classifier arguments	[-U, 3, -A, weka.core.neighboursearch.LinearNNSearch, -W, weka.classifiers.functions.Logistic, -, -R, 3.219992074949572E-12]	
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise	
[Pre-Process]attribute search arguments	[-C, -B, -R]	
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval	
[Pre-Process] attribute evaluation arguments	[-L]	

Table 50: autoweka-diabetic-fold-5

Param name	Param value
Classifier chosen	weka.classifiers.lazy.LWL
Classifier arguments	[-U, 3, -A, weka.core.neighboursearch.LinearNNSearch, -W, weka.classifiers.functions.Logistic, -, -R, 3.219992074949572E-12]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-C, -B, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-1]

Table 51: autoweka-diabetic-fold-6

Param name	Param value
Classifier chosen	weka.classifiers.functions.Logistic
Classifier arguments	[-R, 1.0267505621575885E-10]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 52: autoweka-diabetic-fold-7

Param name	Param value
Classifier chosen	weka.classifiers.functions.Logistic
Classifier arguments	[-R, 1.3125546009206435E-6]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 1: autoweka-diabetic-fold-8

Param name	Param value	
Classifier chosen	weka.classifiers.lazy.LWL	
Classifier arguments	[-U, 3, -A, weka.core.neighboursearch.LinearNNSearch, -W, weka.classifiers.functions.Logistic, -, -R, 3.219992074949572E-12]	
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise	
[Pre-Process]attribute search arguments	[-C, -B, -R]	
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval	
[Pre-Process]attribute evaluation arguments	[-L]	

Table 2: autoweka-diabetic-fold-9

Param name	Param value	
Classifier chosen	weka.classifiers.functions.SMO	
Classifier arguments	[-C, 1.4459431466423454, -N, 0, -K, weka.classifiers.functions.supportVector.PolyKernel -E 2 .5831457101183566 -L]	
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise	
[Pre-Process] attribute search arguments	[-B, -R]	
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval	
[Pre-Process] attribute evaluation arguments	[-M, -L]	

Table 3: autoweka-diabetic-fold-10

Param name	Param value
Classifier chosen	weka.classifiers.meta.AdaBoostM1
Classifier arguments	[-P, 100, -I, 41, -Q, -S, 1, -W, weka.classifiers.trees.J48, -, -B, -A, -M, 12]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-C, -B, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M, -L]

 Table 4: autoweka-obesity-fold-1

Param name	Param value
Classifier chosen	weka.classifiers.meta.AdaBoostM1
Classifier arguments	[-P, 100, -I, 41, -Q, -S, 1, -W, weka.classifiers.trees.J48, -, -B, -A, -M, 12]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-C, -B, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M, -L]

 Table 5: autoweka-obesity-fold-2

Param name	Param value
Classifier chosen	weka.classifiers.meta.AdaBoostM1
Classifier arguments	[-P, 100, -I, 41, -Q, -S, 1, -W, weka.classifiers.trees.J48, -, -B, -A, -M, 12]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-C, -B, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M, -L]

 Table 6: autoweka-obesity-fold-3

Param name	Param value
Classifier chosen	weka.classifiers.functions.Logistic
Classifier arguments	[-R, 7.176574207230079E-10]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

 $\textbf{Table 7:} \ autoweka-obesity-fold-4$

Param name	Param value
Classifier chosen	weka.classifiers.meta.AdaBoostM1
Classifier arguments	[-P, 100, -I, 41, -Q, -S, 1, -W, weka.classifiers.trees.J48, -, -B, -A, -M, 12]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-C, -B, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M, -L]

 Table 8: autoweka-obesity-fold-5

Param name	Param value
Classifier chosen	weka.classifiers.trees.RandomForest
Classifier arguments	[-I, 10, -K, 0, -depth, 0]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

 Table 9: autoweka-obesity-fold-6

Param name	Param value
Classifier chosen	weka.classifiers.trees.LMT
Classifier arguments	[-R, -P, -M, 1, -W, 0, -A]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

 Table 10:
 autoweka-obesity-fold-7

Param name	Param value
Classifier chosen	weka.classifiers.trees.LMT
Classifier arguments	[-M, 5, -W, 0, -A]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M]

 Table 11: autoweka-obesity-fold-8

Param name	Param value
Classifier chosen	weka.classifiers.meta.AdaBoostM1
Classifier arguments	[-P, 100, -I, 41, -Q, -S, 1, -W, weka.classifiers.trees.J48, -, -B, -A, -M, 12]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-C, -B, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M, -L]

Table 12: autoweka-obesity-fold-9

Param name	Param value
Classifier chosen	weka.classifiers.functions.Logistic
Classifier arguments	[-R, 8.545088887809794E-11]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	[]
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

 Table 13:
 autoweka-obesity-fold-10

Param name	Param value
Classifier chosen	weka.classifiers.trees.RandomTree
Classifier arguments	[-M, 1, -K, 0, -depth, 2, -N, 2]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 14: autoweka-thoracic-fold-1

Param name	Param value
Classifier chosen	weka.classifiers.meta.RandomCommittee
Classifier arguments	[-I, 15, -S, 1, -W, weka.classifiers.functions.SGD, -, -F, 1, -L, 0.06176689752266038, -R, 2.0636659429088966, -M]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 0, -N, 6]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-L]

 Table 15: autoweka-thoracic-fold-2

Param name	Param value
Classifier chosen	weka.classifiers.functions.SimpleLogistic
Classifier arguments	[-W, 0]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

 Table 16: autoweka-thoracic-fold-3

Param name	Param value
Classifier chosen	weka.classifiers.lazy.KStar
Classifier arguments	[-B, 41, -E, -M, n]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 17: autoweka-thoracic-fold-4

Param name	Param value
Classifier chosen	weka.classifiers.rules.OneR
Classifier arguments	[-B, 4]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

 Table 18: autoweka-thoracic-fold-5

Param name	Param value
Classifier chosen	weka.classifiers.meta.Bagging
Classifier arguments	[-P, 39, -I, 3, -S, 1, -W, weka.classifiers.functions.MultilayerPerceptron, -, -I., 0.5694633600992264, -M, 0.935097875125993, -B, -H, o, -S, 1]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M]

 Table 19:
 autoweka-thoracic-fold-6

Param name	Param value
Classifier chosen	weka.classifiers.rules.OneR
Classifier arguments	[-B, 28]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 20: autoweka-thoracic-fold-7

Param name	Param value	
Classifier chosen	weka.classifiers.meta.AdaBoostM1	
Classifier arguments	[-P, 100, -I, 14, -S, 1, -W, weka.classifiers.rules.JRip, -, -N, 2.221057319541204, -E, -O, 2]	
[Pre-Process]attribute search	weka.attributeSelection.BestFirst	
[Pre-Process]attribute search arguments	[-D, 1, -N, 4]	
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval	
[Pre-Process]attribute evaluation arguments	[-L]	

Table 21: autoweka-thoracic-fold-8

Param name	Param value
Classifier chosen	weka.classifiers.functions.SimpleLogistic
Classifier arguments	[-W, 0.6253523817456732]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-B, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M, -L]

Table 22: autoweka-thoracic-fold-9

Param name	Param value
Classifier chosen	weka.classifiers.bayes.BayesNet
Classifier arguments	[-Q, weka.classifiers.bayes.net.search.local.SimulatedAnnealing]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 2, -N, 5]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process] attribute evaluation arguments	[-M]

Table 23: autoweka-thoracic-fold-10

Param name	Param value
Classifier chosen	weka.classifiers.meta.AdaBoostM1
Classifier arguments	[-P, 84, -I, 3, -S, 1, -W, weka.classifiers.lazy.IBk, -, -E, -K, 5, -I]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 2, -N, 2]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M, -L]

Table 24: autoweka-breast-cancer-fold-1

Param name	Param value
Classifier chosen	weka.classifiers.trees.LMT
Classifier arguments	[-B, -R, -C, -M, 1, -W, 0]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 25: autoweka-breast-cancer-fold-2

Param name	Param value
Classifier chosen	weka.classifiers.functions.SMO
Classifier arguments	[-C, 1.0627553520919253, -N, 1, -K, weka.classifiers.functions.supportVector.Puk -S 1.5032395337884743 -O 0.7567717274995831]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-C, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M]

Table 26: autoweka-breast-cancer-fold-3

Param name	Param value
Classifier chosen	weka.classifiers.trees.RandomForest
Classifier arguments	[-I, 63, -K, 29, -depth, 0]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 27: autoweka-breast-cancer-fold-4

Param name	Param value
Classifier chosen	weka.classifiers.meta.AdaBoostM1
Classifier arguments	[-P, 80, -I, 8, -Q, -S, 1, -W, weka.classifiers.trees.RandomForest, -, -I, 23, -K, 0, -depth, 18]
[Pre-Process]attribute search	weka.attributeSelection.GreedyStepwise
[Pre-Process]attribute search arguments	[-C, -B, -R]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-L]

Table 28: autoweka-breast-cancer-fold-5

Param name	Param value
Classifier chosen	weka.classifiers.meta.Bagging
Classifier arguments	[-P, 83, -I, 75, -S, 1, -W, weka.classifiers.trees.REPTree, -, -M, 1, -V, 0.010906672296335835, -L, -1]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 29: autoweka-breast-cancer-fold-6

Param name	Param value
Classifier chosen	weka.classifiers.meta.Bagging
Classifier arguments	[-P, 85, -I, 94, -S, 1, -W, weka.classifiers.trees.J48, -, -O, -U, -B, -M, 6]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 30: autoweka-breast-cancer-fold-7

Param name	Param value
Classifier chosen	weka.classifiers.meta.Bagging
Classifier arguments	[-P, 52, -I, 14, -S, 1, -W, weka.classifiers.functions.SimpleLogistic, -, -W, 0, -A]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	0

Table 31: autoweka-breast-cancer-fold-8

Param name	Param value
Classifier chosen	weka.classifiers.functions.Logistic
Classifier arguments	[-R, 5.605699207668992E-5]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 2, -N, 10]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-L]

Table 32: autoweka-breast-cancer-fold-9

Param name	Param value
Classifier chosen	weka.classifiers.trees.RandomForest
Classifier arguments	[-I, 14, -K, 1, -depth, 0]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process] attribute evaluation arguments	

Table 33: autoweka-breast-cancer-fold-10

Param name	Param value
Classifier chosen	weka.classifiers.functions.MultilayerPerceptron
Classifier arguments	[-L, 0.13894230714861677, -M, 0.9289936943883971, -B, -H, i, -C, -S, 1]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 1, -N, 10]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M]

Table 34: autoweka-heart-failure-fold-1

Param name	Param value
Classifier chosen	weka.classifiers.trees.RandomForest
Classifier arguments	[-I, 10, -K, 0, -depth, 0]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 35: autoweka-heart-failure-fold-2

Param name	Param value
Classifier chosen	weka.classifiers.rules.JRip
Classifier arguments	[-N, 3.2016009086796435, -O, 3]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 1, -N, 5]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	

Table 36: autoweka-heart-failure-fold-3

Param name	Param value
Classifier chosen	weka.classifiers.meta.RandomCommittee
Classifier arguments	[-I, 14, -S, 1, -W, weka.classifiers.trees.RandomForest, -, -I, 23, -K, 3, -depth, 13]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 37: autoweka-heart-failure-fold-4

Param name	Param value
Classifier chosen	weka.classifiers.rules.OneR
Classifier arguments	[-B, 5]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 2, -N, 4]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M]

 Table 38:
 autoweka-heart-failure-fold-5

Param name	Param value
Classifier chosen	weka.classifiers.bayes.BayesNet
Classifier arguments	[-Q, weka.classifiers.bayes.net.search.local.LAGDHillClimber]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 39: autoweka-heart-failure-fold-6

Param name	Param value
Classifier chosen	weka.classifiers.functions.SMO
Classifier arguments	[-C, 0.9019765254533808, -N, 2, -K, weka.classifiers.functions.supportVector.RBFKernel -G 6.921767803936556E-4]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 2, -N, 3]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-M]

Table 40: autoweka-heart-failure-fold-7

Param name	Param value
Classifier chosen	weka.classifiers.trees.J48
Classifier arguments	[-O, -U, -B, -A, -M, 62]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 2, -N, 6]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process]attribute evaluation arguments	[-L]

 Table 41:
 autoweka-heart-failure-fold-8

Param name	Param value
Classifier chosen	weka.classifiers.meta.RandomSubSpace
Classifier arguments	[-I, 12, -P, 0.8319723106953512, -S, 1, -W, weka.classifiers.trees.RandomForest, -, -I, 7, -K, 0, -depth, 20]
[Pre-Process]attribute search	null
[Pre-Process]attribute search arguments	
[Pre-Process]attribute evaluation	null
[Pre-Process]attribute evaluation arguments	

Table 42: autoweka-heart-failure-fold-9

Param name	Param value
Classifier chosen	weka.classifiers.trees.RandomTree
Classifier arguments	[-M, 1, -K, 21, -depth, 0, -N, 2]
[Pre-Process]attribute search	weka.attributeSelection.BestFirst
[Pre-Process]attribute search arguments	[-D, 2, -N, 6]
[Pre-Process]attribute evaluation	weka.attributeSelection.CfsSubsetEval
[Pre-Process] attribute evaluation arguments	[-M]

 Table 43:
 autoweka-heart-failure-fold-10