TABLE XI
AUTOSKLEARN GENERATED ENSEMBLE CONFIGURATIONS FOR SCENARIOS 1, 2, 3 AND 4.

Scenario	Preprocessor	Preprocessor Parameters	Balancing Strategy	One Hot Encoding Minimum Fraction	Inputation Strategy	Rescaling Method	Classifier	Classifier Hyperparameters
1	None	None	None	None	None	None	Dummy	strategy: uniform init_params: None random_state:None
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	max_leaf_nodes: None n_estimators: 340 loss: deviance subsample: 0.6289005711340923 min_samples_leaf: 15 max_features: 4.211238636565405 min_samples_split: 16 min_weight_fraction_leaf: 0.0 max_depth: 10, learning_rate: 0.03627152792976942
	Polynomial	degree: 3 interaction_only: True include_bias: True	Weighting	0.14577676557539165	Most Frequent	Normalize	Random Forest	max_features: 1.675620724347966 min_samples_split: 15 criterion: entropy bootstrap: True max_depth: None min_weight_fraction_leaf: 0.0 min_samples_leaf: 5 n_estimators: 100 max_leaf_nodes: None
2	None	None	None	None	None	None	Dummy	strategy: uniform init_params=None random_state=None
	None	None	Weighting	0.000148748655476835	Mean	Standardize	Gradient Boosting Machine	max_leaf_nodes: None n_estimators: 340 loss: deviance subsample: 0.6289005711340923 min_samples_leaf: 15 max_features: 4.211238636565405 min_samples_split: 16 min_weight_fraction_leaf: 0.0 max_depth: 10 learning_rate: 0.03627152792976942
	None	None	Weighting	0.3530578080502024	Mean	None	K-Nearest Neighbors	n_neighbors: 2 p: 1 weights: distance
	Polynomial	interaction_only: False degree: 2, include_bias: False	None	0.010000000000000004	Mean	Min Max	Linear Support Vector	loss: squared_hinge C: 9901.884556489502 penalty: l2 dual: False tol: 0.00237720471 12092503 fit_intercept: True intercept_scaling: 1 multi_class: ovr
	None	None	None	None	Median	Min Max	Linear Support Vector	gamma: 1.421889512788389 tol: 0.07228314195704957 shrinking: False max_iter: -1 kernel: rbf C: 133.619004912714
3	None	None	None	None	None	None	Dummy	strategy: uniform init_params: None random_state: None
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	max_leaf_nodes: None n_estimators: 340 loss: deviance subsample: 0.6289005711340923 min_samples_leaf: 15 max_features: 4.211238636565405 min_samples_split: 16 min_weight_fraction_leaf: 0.0 max_depth: 10 learning_rate: 0.03627152792976942
	Principal Component Analysis	keep_variance: 0.5440040750402232 whiten: True	None	None	Mean	None	Extremely Randomized Trees	max_features: 1.5031924010427555 criterion: entropy min_samples_leaf: 4 bootstrap: True max_depth: None n_estimators: 100 min_samples_split: 8 min_weight_fraction_leaf: 0.0
	None	None	None	None	Median	Min Max	Linear Support Vector	gamma: 1.421889512788389 tol: 0.07228314195704957 shrinking: False max_iter: -1 kernel: rbf C: 133.619004912714
4	None	None	None	None	None	None	Dummy	strategy: uniform init_params: None random_state:None
	None	None	None	0.01	Mean	Standardize	Random Forest	max_leaf_nodes: None n_estimators: 340 loss: deviance subsample: 0.6289005711340923 min_samples_leaf: 15 max_features: 4.211238636565405 min_samples_split: 16 min_weight_fraction_leaf: 0.0 max_depth: 10, learning_rate: 0.03627152792976942
	None	None	Weighting	0.3530578080502024	Mean	None	K-Nearest Neighbors	n_neighbors: 2 p: 1
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	max_leaf_nodes: None n_estimators: 340 loss: deviance subsample: 0.6289005711340923 min_samples_leaf: 15 max_features: 4.211238636565405 min_samples_split: 16 min_weight_fraction_leaf: 0.0 max_depth: 10 learning_rate: 0.03627152792976942
	Polynomial	include_bias: False interaction_only: False degree: 2	None	0.010000000000000004	Mean	Min Max	Linear Support Vector	loss: squared_hinge C: 9901.884556489502 penalty: l2 dual: False tol: 0.00237720471 12092503 fit_intercept: True intercept_scaling: 1 multi_class: ovr

TABLE XII
AUTOSKLEARN GENERATED ENSEMBLE CONFIGURATIONS FOR SCENARIOS 5, 6, 7 AND 8.

Scenario	Preprocessor	Preprocessor Parameters	Balancing Strategy	One Hot Encoding Minimum Fraction	Inputation Strategy	Rescaling Method	Classifier	Classifier Hyperparameters
5	None	None	None	None	None	None	Dummy	strategy: uniform init_params=None random_state=None
	None	None	None	None	Mean	Min Max	AdaBoost	n_estimators: 497 learning_rate: 0.5963067322132379 max_depth: 5 algorithm: SAMME
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	max_leaf_nodes: None n_estimators: 340 loss: deviance subsample: 0.6289005711340923 min_samples_leaf: 15 max_features: 4.211238636565405 min_samples_split: 16 min_weight_fraction_leaf: 0.0 max_depth: 10 learning_rate: 0.03627152792976942
	None	None	None	None	Median	None	Linear Support Vector	gamma: 0.008590925713214136 tol: 0.08183987642157002 shrinking: True max_iter: -1 kernel: rbf C: 16725.85790752666
	Feature Agglomeration	n_clusters: 149 pooling_func: mean linkage: complete affinity: manhattan	None	None	Most Frequent	Standardize	AdaBoost	learning_rate: 0.8309703539232443 algorithm: SAMME n_estimators: 363 max_depth: 6
6	None	None	None	None	None	None	Dummy	strategy: uniform init_params: None random_state: None
	None	None	None	0.01	Mean	Standardize	Random Forest	max_features: 1.0 min_samples_split: 2 criterion: gini bootstrap: True max_depth: None min_weight_fraction_leaf: 0.0 min_samples_leaf: 1 n_estimators: 100 max_leaf_nodes: None
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	max_leaf_nodes: None n_estimators: 340 loss: deviance subsample: 0.6289005711340923 min_samples_leaf: 15 max_features: 4.211238636565405 min_samples_split: 16 min_weight_fraction_leaf: 0.0 max_depth: 10 learning_rate: 0.03627152792976942
	None	None	None	None	Median	None	Linear Support Vector	gamma: 0.008590925713214136 tol: 0.08183987642157002 shrinking: True max_iter: -1 kernel: rbf C: 16725.85790752666
7	None	None	None	None	None	None	Dummy	strategy: uniform init_params: None random_state:None
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	subsample: 0.6289005711340923 max_depth: 10 loss: deviance min_weight_fraction_leaf: 0.0 max_features: 4.211238636565405 learning_rate: 0.03627152792976942 n_estimators: 340 max_leaf_nodes: None min_samples_leaf: 15 min_samples_split: 16
	None	None	None	0.01	Mean	Standardize	Random Forest	max_features: 1.0 max_depth: None min_weight_fraction_leaf: 0.0 n_estimators: 100 criterion: gini max_leaf_nodes: None bootstrap: True min_samples_leaf: 1 min_ samples_split: 2
	None	None	None	None	Mean	Min Max	AdaBoost	max_depth: 5 n_estimators: 497 learning_rate: 0.5963067322132379 algorithm: SAMME
8	None	None	None	None	None	None	Dummy	strategy: uniform init_params=None random_state=None
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	subsample: 0.6289005711340923 max_depth: 10 loss: deviance min_weight_fraction_leaf: 0.0 max_features: 4.211238636565405 learning_rate: 0.03627152792976942 n_estimators: 340 max_leaf_nodes: None min_samples_leaf: 15 min_samples_split: 16

TABLE XIII
AUTOSKLEARN GENERATED ENSEMBLE CONFIGURATIONS FOR SCENARIOS 9,10,11 AND 12.

Scenario	Preprocessor	Preprocessor Parameters	Balancing Strategy	One Hot Encoding Minimum Fraction	Inputation Strategy	Rescaling Method	Classifier	Classifier Hyperparameters
9	None	None	None	None	None	None	Dummy	strategy: uniform init_params: None random_state: None
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	subsample: 0.6289005711340923 max_depth: 10 loss: deviance min_weight_fraction_leaf: 0.0 max_features: 4.211238636565405 learning_rate: 0.03627152792976942 n_estimators: 340 max_leaf_nodes: None min_samples_leaf: 15 min_samples_split: 16
10	None	None	None	None	None	None	Dummy	strategy: uniform init_params: None random_state:None
	Principal Component Analysis	whiten: True keep_variance: 0.5440040750402232	None	None	Mean	None	Extremely Randomized Trees	criterion: entropy max_features: 1.5031924010427555 bootstrap: True max_depth: None min_weight_fraction_leaf: 0.0 min_samples_split: 8 min_samples_leaf: 4 n_estimators: 100
	None	None	None	0.01	Mean	Standardize	Random Forest	max_features: 1.0 max_depth: None min_weight_fraction_leaf: 0.0 n_estimators: 100 criterion: gini max_leaf_nodes: None bootstrap: True min_samples_leaf: 1 min_samples_split: 2
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	subsample: 0.6289005711340923 max_depth: 10 loss: deviance min_weight_fraction_leaf: 0.0 max_features: 4.211238636565405 learning_rate: 0.03627152792976942 n_estimators: 340 max_leaf_nodes: None min_samples_leaf: 15 min_samples_split: 16
	None	None	None	None	Median	Min Max	Linear Support Vector	shrinking: False gamma: 1.421889512788389 tol: 0.07228314195704957 kernel: rbf max_iter: -1 C: 133.619004912714
11	None	None	None	None	None	None	Dummy	strategy: uniform init_params=None random_state=None
	None	None	None	0.01	Mean	Standardize	Random Forest	max_features: 1.0 max_depth: None min_weight_fraction_leaf: 0.0 n_estimators: 100 criterion: gini max_leaf_nodes: None bootstrap: True min_samples_leaf: 1 min_samples_split: 2
	None	None	Weighting	0.3530578080502024	Mean	None	K-Nearest Neighbors	n_neighbors: 2 p: 1 weights: distance
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	subsample: 0.6289005711340923 max_depth: 10 loss: deviance min_weight_fraction_leaf: 0.0 max_features: 4.211238636565405 learning_rate: 0.036271527929769 42 n_estimators: 340 max_leaf_nodes: None min_samples_leaf: 15 min_samples_split: 16
	Polynomial	degree: 2 interaction_only: False include_bias: True	Weighting	None	Mean	Normalize	Linear Support Vector	shrinking: True gamma: 0.1597932521120146 tol: 0.00013911955271793795 kernel: rbf max_iter: -1 C: 17304.617799701293
12	None	None	None	None	None	None	Dummy	strategy: uniform init_params: None random_state: None
	None	None	Weighting	0.0002148748655476835	Mean	Standardize	Gradient Boosting Machine	subsample: 0.6289005711340923 max_depth: 10 loss: deviance min_weight_fraction_leaf: 0.0 max_features: 4.211238636565405 learning_rate: 0.03627152792976942 n_estimators: 340 max_leaf_nodes: None min_samples_leaf: 15 min_samples_split: 16
	None	None	None	None	Median	None	Linear Support Vector	shrinking: True gamma: 0.008590925713214136 tol: 0.08183987642157002 kernel: rbf max_iter: -1 C: 16725.85790752666
	Polynomial	degree: 3 interaction_only: True include_bias: True	Weighting	0.14577676557539165	Most Frequent	Normalize	Random Forest	max_features: 1.675620724347966 max_depth: None min_weight_fraction_leaf: 0.0 n_estimators: 100 criterion: entropy max_leaf_nodes: None bootstrap: True min_samples_leaf: 5 min_samples_split: 15