Cross-validation results for regression methods

Cross-valida		1	ssion methods	1
	num_feat	scori		best_sc
response	ures	ng	best_estimator	ore
			DecisionTreeRegressor(criterion='mse', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
1_min_ret		Trad	random_state=None,	0.16394
urn	4	eZ	splitter='best')	95
			DecisionTreeRegressor(criterion='mse', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
1_min_ret		Trad	random_state=None,	0.16394
urn	4	eZ	splitter='best')	95
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
1_min_ret		Trad	random_state=None,	0.12449
urn	8	eZ	verbose=0, warm_start=False)	86
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
1_min_ret		Trad	random_state=None,	0.11591
urn	4	eZ	verbose=0, warm_start=False)	88
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
1_min_ret		Trad	random_state=None,	0.09994
urn	15	eZ	verbose=0, warm_start=False)	72
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=2,	
1_min_ret		Trad	max_features='auto', max_leaf_nodes=None,	0.08907
urn _	8	eZ	min_samples_leaf=1,	69
	1		<u> </u>	

			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
			random_state=None,	
			verbose=0, warm_start=False)	
			DecisionTreeRegressor(criterion='mse', max_depth=10,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
1_min_ret		Trad	random_state=None,	0.08721
urn	8	eZ	splitter='best')	86
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
1_min_ret		Trad	random_state=None,	0.08451
urn	15	eZ	verbose=0, warm_start=False)	69
			DecisionTreeRegressor(criterion='mse', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
4		T	min_weight_fraction_leaf=0.0, presort=False,	0.07600
1_min_ret	0	Trad	random_state=None,	0.07689
urn	8	eZ	splitter='best')	52
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
1_min_ret		Trad	random state=None,	0.06030
urn	4	eZ	verbose=0, warm_start=False)	35
uiii		CZ	DecisionTreeRegressor(criterion='mse', max_depth=20,	33
			max_features=None,	
			max leaf nodes=None, min samples leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
1_min_ret		Trad	random_state=None,	0.02975
urn	15	eZ	splitter='best')	65
			DecisionTreeRegressor(criterion='mse', max_depth=28,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
1_min_ret		Trad	min_samples_split=2,	0.02911
urn	15	eZ	min_weight_fraction_leaf=0.0, presort=False,	18
urn	15	eZ	min_weight_fraction_leaf=0.0, presort=False,	18

			random_state=None,	
			splitter='best')	
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=25,	
1_min_ret		Trad	p=2,	0.02534
urn	4	eZ	weights='distance')	01
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
1_min_ret		Trad	p=2,	0.02406
urn	15	eZ	weights='distance')	02
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
4		T	metric_params=None, n_jobs=1, n_neighbors=300,	0.04060
1_min_ret	o	Trad	p=2,	0.01968
urn	8	eZ	weights='distance')	31
			BaggingRegressor(base_estimator=None, bootstrap=True, bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
1_min_ret		Trad	random_state=None,	0.01766
urn	15	eZ	verbose=0, warm_start=False)	27
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
1_min_ret		Trad	random_state=None,	0.01692
urn	43	eZ	verbose=0, warm_start=False)	25
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=150, n_jobs=1, oob_score=False,	
1_min_ret		Trad	random_state=None,	0.01623
urn	8	eZ	verbose=0, warm_start=False)	49
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000294344914513, gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
1 min rot		Trad	tol=0.001,	0.01384
1_min_ret urn	15	eZ	verbose=False)	69
uiii	13	EL	Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	09
			max iter=None,	
1_min_ret		Trad	normalize=True, random state=None, solver='auto',	0.01346
urn	43	eZ	tol=0.001)	48
			Ridge(alpha=0.1, copy_X=True, fit_intercept=True,	.5
1_min_ret		Trad	max iter=None,	0.01309
1 I IIIII I CC		Hau	I III ax Itel-None,	0.01303

			tol=0.001)	
1_min_ret		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01262
urn	15	eZ	n_jobs=1, normalize=True)	93
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=150, n_jobs=1, oob_score=False,	
1_min_ret		Trad	random_state=None,	0.01151
urn	4	eZ	verbose=0, warm_start=False)	28
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=7.35862286283e-05,	
4		T	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	0.01064
1_min_ret	4	Trad	tol=0.001,	0.01064
urn	4	eZ	verbose=False)	55
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True, max_iter=None,	
1_min_ret		Trad	normalize=True, random_state=None, solver='auto',	0.00976
urn	8	eZ	tol=0.001)	0.00370
um			AdaBoostRegressor(base estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	
1_min_ret		Trad	learning_rate=1.0, loss='linear', n_estimators=100,	0.00889
urn	4	eZ	random_state=None)	07
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	
1_min_ret		Trad	learning_rate=1.0, loss='linear', n_estimators=200,	0.00806
urn	8	eZ	random_state=None)	48
			SVR(C=1, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=7.35862286283e-05,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
1_min_ret		Trad	tol=0.001,	0.00773
urn	8	eZ	verbose=False)	59
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
		- .	max_iter=None,	0.00677
1_min_ret	4	Trad	normalize=True, random_state=None, solver='auto',	0.00677
urn 1 min rot	4	eZ Trad	tol=0.001) LinearRegression(copy_X=True, fit_intercept=True,	0.00553
1_min_ret urn	8	eZ	n_jobs=1, normalize=True)	78
uiii	0	EZ	AdaBoostRegressor(base_estimator=LinearRegression(cop	76
			y X=True, fit intercept=True, n jobs=1, normalize=False),	
1_min_ret		Trad	learning rate=1.0, loss='linear', n estimators=400,	0.00385
urn	15	eZ	random state=None)	36
			AdaBoostRegressor(base estimator=DecisionTreeRegresso	- 33
			r(criterion='mse', max depth=4, max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min samples split=2,	
1_min_ret		Trad	min_weight_fraction_leaf=0.0, presort=False,	0.00343
urn	4	eZ	random_state=None,	14

			splitter='best'),	l I
			learning_rate=1.0, loss='linear', n_estimators=200,	
			random state=None)	
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
1_min_ret		Trad	learning_rate=1.0, loss='linear', n_estimators=200,	0.00293
urn	8	eZ	random_state=None)	41
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None, splitter='best'),	
1_min_ret		Trad	learning_rate=1.0, loss='linear', n_estimators=400,	0.00232
urn	15	eZ	random_state=None)	64
1_min_ret	13	Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.00208
urn	4	eZ	n_jobs=1, normalize=True)	95
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
10_min_re		Trad	random_state=None,	0.10089
turn	4	eZ	splitter='best')	8
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
10 min m		Trod	min_weight_fraction_leaf=0.0, presort=False,	0.10089
10_min_re turn	4	Trad eZ	random_state=None, splitter='best')	0.10089
turri	4	EZ	RandomForestRegressor(bootstrap=True, criterion='mse',	0
			max_depth=2,	
			max_depth=2, max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
10_min_re		Trad	random_state=None,	0.03935
turn	8	eZ	verbose=0, warm_start=False)	68
10_min_re	8	Trad	DecisionTreeRegressor(criterion='mse', max_depth=4,	0.03274

turn		eZ	max_features=None,	74
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best')	
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max features='auto', max leaf nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
10_min_re		Trad	random_state=None,	0.03147
	4	eZ	<u> </u>	22
turn	4	EL	verbose=0, warm_start=False) AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2,	
			min weight fraction leaf=0.0, presort=False,	
			random_state=None,	
			<u> </u>	
10 min ro		Trad	splitter='best'),	0.02002
10_min_re	0	Trad	learning_rate=1.0, loss='linear', n_estimators=100,	0.02993
turn	8	eZ	random_state=None)	39
			DecisionTreeRegressor(criterion='mse', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
10		T.,	min_weight_fraction_leaf=0.0, presort=False,	0.02002
10_min_re	0	Trad	random_state=None,	0.02892
turn	8	eZ	splitter='best')	37
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
		- .	metric_params=None, n_jobs=1, n_neighbors=300,	0.005.00
10_min_re	4.5	Trad	p=1,	0.02568
turn	15	eZ	weights='distance')	25
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=8,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	0.005.5
10_min_re	=	Trad	random_state=None,	0.02567
turn	4	eZ	verbose=0, warm_start=False)	9
		_	SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
10_min_re		Trad	epsilon=0.000220544846491,	0.02552
turn	4	eZ	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	68

İ			tol=0.001,	
			verbose=False)	
			DecisionTreeRegressor(criterion='mse', max_depth=5,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
10_min_re		Trad	random_state=None,	0.02492
turn	15	eZ	splitter='best')	1
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	0.00444
10_min_re	4	Trad	p=1,	0.02441
turn	4	eZ	weights='distance')	92
			DecisionTreeRegressor(criterion='mse', max_depth=10, max_features=None,	
			max_leaf nodes=None, min samples leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
10_min_re		Trad	random_state=None,	0.02401
turn	15	eZ	splitter='best')	11
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
10_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=200,	0.02389
turn	15	eZ	random_state=None)	52
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=8,	
			max_features='auto', max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n estimators=30, n jobs=1, oob score=False,	
10_min_re		Trad	random_state=None,	0.02198
turn	15	eZ	verbose=0, warm_start=False)	41
			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
10_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.02136
turn	4	eZ	tol=0.001)	85
			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
10_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.02038
turn	43	eZ	tol=0.001)	78
10_min_re	15	Trad	RandomForestRegressor(bootstrap=True, criterion='mse',	0.01961

turn		eZ	max_depth=4,	02
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
			random_state=None,	
			verbose=0, warm_start=False)	
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=8,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
10_min_re		Trad	random state=None,	0.01917
turn	8	eZ	verbose=0, warm_start=False)	0.01917 44
tuiii	ő	EZ	- · · · · · · · · · · · · · · · · · · ·	44
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
40 .		- .	metric_params=None, n_jobs=1, n_neighbors=300,	0.04070
10_min_re		Trad	p=2,	0.01872
turn	8	eZ	weights='distance')	54
10_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01866
turn	4	eZ	n_jobs=1, normalize=True)	88
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000882179385963,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
10_min_re		Trad	tol=0.001,	0.01863
turn	8	eZ	verbose=False)	1
			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
10_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.01854
turn	8	eZ	tol=0.001)	63
10_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01778
turn	8	eZ	n_jobs=1, normalize=True)	33
			Ridge(alpha=0.1, copy_X=True, fit_intercept=True,	
			max iter=None,	
10_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.01746
turn	15	eZ	tol=0.001)	07
10 min re	13	Trad	LinearRegression(copy X=True, fit intercept=True,	0.01647
turn	15	eZ	n jobs=1, normalize=True)	12
Cuili	13	C2	AdaBoostRegressor(base_estimator=DecisionTreeRegresso	12
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
10		T 1	min_weight_fraction_leaf=0.0, presort=False,	0.04353
10_min_re		Trad	random_state=None,	0.01353
turn	4	eZ	splitter='best'),	11

			learning_rate=1.0, loss='linear', n_estimators=50, random state=None)	
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=False),	
10_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=200,	0.01278
turn	15	eZ	random_state=None)	62
tuiii		CZ	BaggingRegressor(base_estimator=None, bootstrap=True,	02
			bootstrap_features=False, max_features=1.0,	
			max samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
10_min_re		Trad	random_state=None,	0.00711
turn	43	eZ	verbose=0, warm_start=False)	64
tarri	73	CZ	SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	0-1
			epsilon=0.000220544846491,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
10_min_re		Trad	tol=0.001,	0.00342
turn	15	eZ	verbose=False)	0.00542
tarri		CZ	BaggingRegressor(base_estimator=None, bootstrap=True,	03
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
10_min_re		Trad	random_state=None,	0.00110
turn	8	eZ	verbose=0, warm_start=False)	2
carri			BaggingRegressor(base_estimator=None, bootstrap=True,	_
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
10_min_re		Trad	random_state=None,	0.00047
turn	15	eZ	verbose=0, warm_start=False)	17
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	_
10_min_re		Trad	random_state=None,	0.00050
turn	4	eZ	verbose=0, warm_start=False)	5
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	-
10_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=100,	0.01172
turn	4	eZ	random_state=None)	42
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=False),	-
10_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=100,	0.01658
turn	8	eZ	random_state=None)	47
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
20_min_re		Trad	max_leaf_nodes=None, min_samples_leaf=1,	0.03678

ĺ			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
			learning_rate=1.0, loss='linear', n_estimators=200,	
			random_state=None)	
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20_min_re		Trad	random_state=None,	0.03621
turn	4	eZ	splitter='best')	0.03021
tarri	7	CZ	DecisionTreeRegressor(criterion='mse', max_depth=3,	- 07
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20 min ro		Trad		0.03621
20_min_re turn	4	eZ	random_state=None, splitter='best')	0.03621
turri	4	EZ	Ridge(alpha=1.0, copy X=True, fit intercept=True,	07
			1 2	
20 min ro		Trad	max_iter=None,	0.03557
20_min_re	4	Trad	normalize=True, random_state=None, solver='auto',	
turn	4	eZ	tol=0.001)	05
			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	
20		Tuesd	max_iter=None,	0.02072
20_min_re	0	Trad	normalize=True, random_state=None, solver='auto',	0.02973
turn	8	eZ	tol=0.001)	32
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	0.0004.6
20_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=400,	0.02816
turn	8	eZ	random_state=None)	82
20_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.02579
turn	8	eZ	n_jobs=1, normalize=True)	09
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
		_	n_estimators=30, n_jobs=1, oob_score=False,	
20_min_re		Trad	random_state=None,	0.02460
turn	4	eZ	verbose=0, warm_start=False)	71
20_min_re	4	Trad	RandomForestRegressor(bootstrap=True, criterion='mse',	0.02441

turn		eZ	max_depth=1,	39
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
			random_state=None,	
			verbose=0, warm_start=False)	
20_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.02340
turn	4	eZ	n_jobs=1, normalize=True)	6
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=8,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
20_min_re		Trad	random_state=None,	0.02295
turn	15	eZ	verbose=0, warm_start=False)	64
			AdaBoostRegressor(base estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=False),	
20_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=200,	0.02266
turn	4	eZ	random_state=None)	12
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000304687250975,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
20_min_re		Trad	tol=0.001,	0.02201
turn	4	eZ	verbose=False)	59
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
20_min_re		Trad	random state=None,	0.02079
turn	43	eZ	verbose=0, warm_start=False)	36
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max_features=None,	
			max leaf nodes=None, min samples leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20_min_re		Trad	random_state=None,	0.01978
turn	8	eZ	splitter='best')	63
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max features=None,	
			max leaf nodes=None, min samples leaf=1,	
			min_samples_split=2,	
20_min_re		Trad	min_weight_fraction_leaf=0.0, presort=False,	0.01978
turn	8	eZ	random_state=None,	63
			1	

			splitter='best')	
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
20 min ro		Trad		0.01977
20_min_re	15		random_state=None,	
turn	15	eZ	verbose=0, warm_start=False)	46
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
20_min_re		Trad	random_state=None,	0.01902
turn	8	eZ	verbose=0, warm_start=False)	11
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
20_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=200,	0.01901
turn	4	eZ	random_state=None)	48
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
20_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.01875
turn	43	eZ	tol=0.001)	66
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	
20 min re		Trad	learning_rate=1.0, loss='linear', n_estimators=400,	0.01719
turn	15	eZ	random_state=None)	87
tuiii	15	CZ	Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	- 67
			max iter=None,	
20 min ro		Trad		0.01719
20_min_re	15		normalize=True, random_state=None, solver='auto',	
turn	15	eZ	tol=0.001)	1
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
20_min_re		Trad	random_state=None,	0.01700
turn	8	eZ	verbose=0, warm_start=False)	03

20_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01560
turn	15	eZ	n_jobs=1, normalize=True)	56
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
20_min_re		Trad	p=2,	0.01424
turn	15	eZ	weights='distance')	79
1			DecisionTreeRegressor(criterion='mse', max_depth=10,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20_min_re		Trad	random_state=None,	0.01060
turn	15	eZ	splitter='best')	48
			DecisionTreeRegressor(criterion='mse', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20_min_re	4-	Trad	random_state=None,	0.01000
turn	15	eZ	splitter='best')	94
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000304687250975,	
20		T1	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	0.00063
20_min_re	0	Trad	tol=0.001,	0.00862
turn	8	eZ	verbose=False)	15
			KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
20 min re		Trad	p=1,	0.00627
turn	4	eZ	weights='uniform')	81
tuiii		CZ	AdaBoostRegressor(base_estimator=LinearRegression(cop	01
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	
20_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=200,	0.00307
turn	8	eZ	random state=None)	5
			BaggingRegressor(base estimator=None, bootstrap=True,	
			bootstrap features=False, max features=1.0,	
			max_samples=1.0,	
			n estimators=50, n jobs=1, oob score=False,	
20_min_re		Trad	random_state=None,	0.00306
turn	15	eZ	verbose=0, warm_start=False)	72
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=50, n_jobs=1, oob_score=False,	
20_min_re		Trad	random_state=None,	0.00200
turn	4	eZ	verbose=0, warm_start=False)	14

1			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000304687250975,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
20_min_re		Trad	tol=0.001,	0.00088
turn	15	eZ	verbose=False)	09
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	-
20_min_re		Trad	p=2,	0.00093
turn	8	eZ	weights='uniform')	63
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
20		T l	n_estimators=300, n_jobs=1, oob_score=False,	- 0 00001
20_min_re		Trad	random_state=None,	0.00231
turn	8	eZ	verbose=0, warm_start=False)	96
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1, max features='auto', max leaf nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
40_min_re		Trad	random_state=None,	0.07129
turn	15	eZ	verbose=0, warm_start=False)	62
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
40_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=400,	0.05677
turn	15	eZ	random_state=None)	08
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
40 min re		Trad	min_weight_fraction_leaf=0.0, presort=False,	0.05342
turn	8	eZ	random_state=None, splitter='best')	36
tuiii	0	EL	DecisionTreeRegressor(criterion='mse', max_depth=3,	30
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
40_min_re		Trad	min_weight_fraction_leaf=0.0, presort=False,	0.05342
turn	8	eZ	random state=None,	36
cui i i	<u> </u>	C_	ranaom_state Hone,	

			splitter='best')	
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
40_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=100,	0.04097
turn	8	eZ	random_state=None)	52
			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
40_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.03312
turn	4	eZ	tol=0.001)	54
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=8,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
40_min_re		Trad	random_state=None,	0.03079
turn	8	eZ	verbose=0, warm_start=False)	02
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
40_min_re		Trad	p=2,	0.02905
turn	15	eZ	weights='distance')	82
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
40_min_re		Trad	random_state=None,	0.02881
turn	8	eZ	verbose=0, warm_start=False)	24
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000426505451693,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	0.00755
40_min_re	_	Trad	tol=0.001,	0.02755
turn	4	eZ	verbose=False)	5
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=8,	
			max_features='auto', max_leaf_nodes=None,	
40:		T !	min_samples_leaf=1,	0.03553
40_min_re	4.5	Trad	min_samples_split=2, min_weight_fraction_leaf=0.0,	0.02662
turn	15	eZ	n_estimators=100, n_jobs=1, oob_score=False,	31

			random_state=None,	
			verbose=0, warm_start=False)	
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
40 min re		Trad	normalize=False, random_state=None, solver='auto',	0.02558
turn	8	eZ	tol=0.001)	99
40_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.02557
turn	8	eZ	n_jobs=1, normalize=True)	42
CO. 1.1			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	·-
			max_iter=None,	
40_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.02292
turn	43	eZ	tol=0.001)	85
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=8,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
40_min_re		Trad	random_state=None,	0.02244
turn	4	eZ	verbose=0, warm_start=False)	23
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
40_min_re		Trad	random_state=None,	0.01919
turn	4	eZ	verbose=0, warm_start=False)	86
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random state=None,	
			splitter='best'),	
40_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=400,	0.01866
turn	4	eZ	random_state=None)	72
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
40_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.01820
turn	15	eZ	tol=0.001)	96
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
40_min_re		Trad	n_estimators=300, n_jobs=1, oob_score=False,	0.01644
turn	43	eZ	random_state=None,	78

			verbose=0, warm_start=False)	
40_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01592
turn	4	eZ	n_jobs=1, normalize=True)	67
40_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01552
turn	15	eZ	n_jobs=1, normalize=True)	88
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.00170602180677,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
40_min_re		Trad	tol=0.001,	0.01523
turn	15	eZ	verbose=False)	61
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
40_min_re		Trad	p=2,	0.01446
turn	4	eZ	weights='distance')	76
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
40_min_re	_	Trad	p=1,	0.01324
turn	8	eZ	weights='uniform')	5
			DecisionTreeRegressor(criterion='mse', max_depth=38,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
40_min_re	_	Trad	random_state=None,	0.01235
turn	4	eZ	splitter='best')	87
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.00170602180677,	
40 min no		Trod	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	0.01105
40_min_re	8	Trad	tol=0.001, verbose=False)	0.01195
turn	8	eZ	,	1
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
40 min ro		Trad	y_X=True, fit_intercept=True, n_jobs=1, normalize=False),	0.01125
40_min_re turn	15	eZ	learning_rate=1.0, loss='linear', n_estimators=200, random_state=None)	76
turri	13	ez	DecisionTreeRegressor(criterion='mse', max_depth=10,	70
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
40_min_re		Trad	random_state=None,	0.01109
	15	eZ	splitter='best')	53
turn	13	EZ		33
			DecisionTreeRegressor(criterion='mse', max_depth=52, max_features=None,	
40 min ro		Trad	max_leaf_nodes=None, min_samples_leaf=1,	0.01054
40_min_re	4	eZ	min_samples_split=2,	_
turn	4	۲L	mm_samples_spiit-z,	8

			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best')	
			DecisionTreeRegressor(criterion='mse', max_depth=10,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
40_min_re		Trad	random_state=None,	0.00988
turn	15	eZ	splitter='best')	9
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=150, n_jobs=1, oob_score=False,	
40_min_re		Trad	random_state=None,	0.00976
turn	15	eZ	verbose=0, warm_start=False)	47
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	
40_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=400,	0.00862
turn	4	eZ	random_state=None)	28
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	
40_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=50,	0.00678
turn	8	eZ	random_state=None)	26
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=150, n_jobs=1, oob_score=False,	
40_min_re		Trad	random_state=None,	0.00105
turn	4	eZ	verbose=0, warm_start=False)	35
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=150, n_jobs=1, oob_score=False,	
40_min_re	_	Trad	random_state=None,	-6.27E-
turn	8	eZ	verbose=0, warm_start=False)	05
			DecisionTreeRegressor(criterion='mse', max_depth=5,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	0.04004
5_min_ret	_	Trad	random_state=None,	0.04031
urn	8	eZ	splitter='best')	58
			DecisionTreeRegressor(criterion='mse', max_depth=5,	
			max_features=None,	0.00011
5_min_ret	_	Trad	max_leaf_nodes=None, min_samples_leaf=1,	0.03914
urn	8	eZ	min_samples_split=2,	66

		ĺ	min_weight_fraction_leaf=0.0, presort=False,	[[
			random_state=None,	
			splitter='best')	
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
_			n_estimators=30, n_jobs=1, oob_score=False,	
5_min_ret		Trad	random_state=None,	0.03642
urn	15	eZ	verbose=0, warm_start=False)	21
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
5_min_ret		Trad	random_state=None,	0.02829
urn	4	eZ	verbose=0, warm_start=False)	49
			DecisionTreeRegressor(criterion='mse', max_depth=5,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
5_min_ret	4-	Trad	random_state=None,	0.02627
urn	15	eZ	splitter='best')	83
			DecisionTreeRegressor(criterion='mse', max_depth=5,	
			max_features=None, max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
5_min_ret		Trad	random_state=None,	0.02627
urn	15	eZ	splitter='best')	83
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000159924068623,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
5_min_ret		Trad	tol=0.001,	0.02459
urn	4	eZ	verbose=False)	81
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=100,	0.00046
5_min_ret	4.5	Trad	p=2,	0.02248
urn	15	eZ	weights='distance')	31
5_min_ret	1 -	Trad	ExtraTreesRegressor(bootstrap=False, criterion='mse',	0.02221
urn	15	eZ	max_depth=32,	56

			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
			random_state=None,	
			verbose=0, warm_start=False)	
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
		- .	splitter='best'),	0.0004.4
5_min_ret		Trad	learning_rate=1.0, loss='linear', n_estimators=400,	0.02214
urn	8	eZ	random_state=None)	49
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
5_min_ret		Trad	learning_rate=1.0, loss='linear', n_estimators=100,	0.02118
urn	15	eZ	random_state=None)	08
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=8,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n estimators=100, n jobs=1, oob score=False,	
5_min_ret		Trad	random_state=None,	0.02059
urn	8	eZ	verbose=0, warm_start=False)	47
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000159924068623.	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
5_min_ret		Trad	tol=0.001,	0.01980
urn	15	eZ	verbose=False)	0.01300
MIII	13		KNeighborsRegressor(algorithm='auto', leaf size=30,	0,
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=25,	
E min rot		Trad		0.01050
5_min_ret	,		p=1,	0.01959
urn	4	eZ	weights='distance')	61
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
5_min_ret		Trad	p=2,	0.01954
urn	8	eZ	weights='distance')	75

1			DecisionTreeRegressor(criterion='mse', max_depth=28,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
5_min_ret		Trad	random_state=None,	0.01858
urn	4	eZ	splitter='best')	32
			Ridge(alpha=0.1, copy_X=True, fit_intercept=True,	
			max iter=None,	
5 min ret		Trad	normalize=True, random_state=None, solver='auto',	0.01837
urn	8	eZ	tol=0.001)	74
			DecisionTreeRegressor(criterion='mse', max_depth=98,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
5_min_ret		Trad	random_state=None,	0.01821
urn	4	eZ	splitter='best')	28
5_min_ret		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01811
urn	8	eZ	n_jobs=1, normalize=True)	56
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=8,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
5_min_ret		Trad	random_state=None,	0.01738
urn	4	eZ	verbose=0, warm_start=False)	58
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
5_min_ret		Trad	random_state=None,	0.01680
urn	8	eZ	verbose=0, warm_start=False)	34
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
5_min_ret		Trad	normalize=False, random_state=None, solver='auto',	0.01645
urn	15	eZ	tol=0.001)	13
5_min_ret		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01636
urn	15	eZ	n_jobs=1, normalize=True)	36
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000159924068623,	
5_min_ret		Trad	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	0.01383
urn	8	eZ	tol=0.001,	01

		Ì	verbose=False)	
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
5_min_ret		Trad	random_state=None,	0.01297
urn	43	eZ	verbose=0, warm_start=False)	45
			Ridge(alpha=0.1, copy_X=True, fit_intercept=True,	
			max_iter=None,	
5_min_ret		Trad	normalize=True, random_state=None, solver='auto',	0.01256
urn	43	eZ	tol=0.001)	36
5_min_ret		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01248
urn	4	eZ	n_jobs=1, normalize=True)	99
			Ridge(alpha=0.1, copy_X=True, fit_intercept=True,	
			max_iter=None,	
5_min_ret		Trad	normalize=False, random_state=None, solver='auto',	0.01248
urn	4	eZ	tol=0.001)	99
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
5_min_ret		Trad	learning_rate=1.0, loss='linear', n_estimators=100,	0.01242
urn	4	eZ	random_state=None)	54
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=50, n_jobs=1, oob_score=False,	
5_min_ret		Trad	random_state=None,	0.01203
urn	8	eZ	verbose=0, warm_start=False)	49
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=150, n_jobs=1, oob_score=False,	
5_min_ret		Trad	random_state=None,	0.01172
urn	4	eZ	verbose=0, warm_start=False)	64
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=50, n_jobs=1, oob_score=False,	
5_min_ret		Trad	random_state=None,	0.01154
urn	15	eZ	verbose=0, warm_start=False)	58
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
5_min_ret		Trad	y_X=True, fit_intercept=True, n_jobs=1, normalize=False),	0.00885
urn	15	eZ	learning_rate=1.0, loss='linear', n_estimators=50,	12

			random_state=None)	
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=False),	
5_min_ret		Trad	learning_rate=1.0, loss='linear', n_estimators=100,	0.00669
urn	8	eZ	random_state=None)	56
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=False),	-
5_min_ret		Trad	learning_rate=1.0, loss='linear', n_estimators=50,	0.00299
urn	4	eZ	random_state=None)	72
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
80_min_re		Trad	random_state=None,	0.12139
turn	15	eZ	verbose=0, warm_start=False)	43
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
80_min_re		Trad	random_state=None,	0.11739
turn	8	eZ	splitter='best')	2
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
80_min_re		Trad	random_state=None,	0.11739
turn	8	eZ	splitter='best')	2
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
80_min_re		Trad	random_state=None,	0.10328
turn	15	eZ	splitter='best')	31
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
80_min_re		Trad	random_state=None,	0.10328
turn	15	eZ	splitter='best')	31
80_min_re	8	Trad	RandomForestRegressor(bootstrap=True, criterion='mse',	0.06788

turn		eZ	max_depth=2,	54
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
			random_state=None,	
			verbose=0, warm_start=False)	
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			_	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
80_min_re		Trad	random_state=None,	0.06702
turn	4	eZ	splitter='best')	32
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
80_min_re		Trad	random_state=None,	0.06702
turn	4	eZ	splitter='best')	32
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=2, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
80_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=100,	0.05973
	8	eZ	random state=None)	35
turn	0	ez	- '	33
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
80_min_re		Trad	random_state=None,	0.05407
turn	8	eZ	verbose=0, warm_start=False)	2
	<u> </u>		ExtraTreesRegressor(bootstrap=False, criterion='mse',	
	<u> </u>		ExtraTreesRegressor(bootstrap=False, criterion='mse', max_depth=4,	
			max_depth=4,	
			max_depth=4, max_features='auto', max_leaf_nodes=None,	
			max_depth=4, max_features='auto', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	
80_min_re	<u> </u>	Trad	max_depth=4, max_features='auto', max_leaf_nodes=None, min_samples_leaf=1,	0.05000

		ì	KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
20 min no		Trad	metric_params=None, n_jobs=1, n_neighbors=300,	0.04636
80_min_re turn	15	Trad eZ	p=2, weights='uniform')	0.04636 22
tarri	13	CZ	KNeighborsRegressor(algorithm='auto', leaf_size=30,	22
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
80_min_re		Trad	p=1,	0.04626
turn	8	eZ	weights='uniform')	51
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	0.04400
80_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=400,	0.04420
turn	4	eZ	random_state=None) AdaBoostRegressor(base_estimator=DecisionTreeRegresso	87
			r(criterion='mse', max_depth=2, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
80_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=50,	0.04245
turn	15	eZ	random_state=None)	79
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=2, max_features=None, max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
80_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=400,	0.03862
turn	4	eZ	random_state=None)	9
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
80 min re		Trad	random_state=None,	0.03852
turn	4	eZ	verbose=0, warm_start=False)	53
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
00		Tue -l	min_samples_split=2,	0.03736
80_min_re	1	Trad	min_weight_fraction_leaf=0.0,	0.03736
turn	4	eZ	n_estimators=100, n_jobs=1, oob_score=False,	2

1			random_state=None,	1
			verbose=0, warm_start=False)	
			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
80_min_re		Trad	normalize=True, random state=None, solver='auto',	0.03601
turn	4	eZ	tol=0.001)	18
		_	Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
80_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.03340
turn	15	eZ	tol=0.001)	59
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max iter=None,	
80_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.03339
turn	8	eZ	tol=0.001)	58
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
80_min_re		Trad	normalize=True, random_state=None, solver='auto',	0.03308
turn	43	eZ	tol=0.001)	05
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=25,	
80_min_re		Trad	p=2,	0.02864
turn	4	eZ	weights='uniform')	87
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=150, n_jobs=1, oob_score=False,	
80_min_re		Trad	random_state=None,	0.02737
turn	15	eZ	verbose=0, warm_start=False)	07
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.00238784178387,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
80_min_re		Trad	tol=0.001,	0.02712
turn	8	eZ	verbose=False)	44
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000596960445968,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
80_min_re		Trad	tol=0.001,	0.02634
turn	4	eZ	verbose=False)	64
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	0.000
80_min_re		Trad	random_state=None,	0.02324
turn	43	eZ	verbose=0, warm_start=False)	69
80_min_re	_	Trad	BaggingRegressor(base_estimator=None, bootstrap=True,	0.02312
turn	8	eZ	bootstrap_features=False, max_features=1.0,	27

			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
			random_state=None,	
			verbose=0, warm_start=False)	
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000596960445968,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
80_min_re		Trad	tol=0.001,	0.01721
turn	15	eZ	verbose=False)	86
80_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01533
turn	15	eZ	n_jobs=1, normalize=True)	75
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
80_min_re		Trad	random_state=None,	0.01395
turn	4	eZ	verbose=0, warm_start=False)	77
80_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01261
turn	8	eZ	n_jobs=1, normalize=True)	05
80_min_re		Trad	LinearRegression(copy_X=True, fit_intercept=True,	0.01116
turn	4	eZ	n_jobs=1, normalize=True)	86
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	
80_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=200,	0.00443
turn	15	eZ	random_state=None)	75
			AdaBoostRegressor(base_estimator=LinearRegression(cop	
			y_X=True, fit_intercept=True, n_jobs=1, normalize=True),	-
80_min_re		Trad	learning_rate=1.0, loss='linear', n_estimators=50,	0.00027
turn	8	eZ	random_state=None)	08
			DecisionTreeRegressor(criterion='mse', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
1_min_ret		Defa	random_state=None,	9.08E-
urn	15	ult	splitter='best')	04
			DecisionTreeRegressor(criterion='mse', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
1_min_ret		Defa	random_state=None,	9.08E-
urn	15	ult	splitter='best')	04
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=4,	0.00-
1_min_ret	_	Defa	max_features='auto', max_leaf_nodes=None,	8.98E-
urn	4	ult	min_samples_leaf=1,	04

			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
			random state=None,	
			verbose=0, warm_start=False)	
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			n estimators=30, n jobs=1, oob score=False,	
1_min_ret		Defa	random_state=None,	8.68E-
urn	4	ult	verbose=0, warm_start=False)	04
G		55	ExtraTreesRegressor(bootstrap=False, criterion='mse',	•
			max depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min samples split=2, min weight fraction leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
1_min_ret		Defa	random state=None,	7.59E-
urn	15	ult	verbose=0, warm_start=False)	04
uiii	13	uit	Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	04
			max_iter=None,	
1_min_ret		Defa	normalize=True, random_state=None, solver='auto',	7.40E-
urn	15	ult	tol=0.001)	04
um	13	uit	ExtraTreesRegressor(bootstrap=False, criterion='mse',	0-
			max_depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
1_min_ret		Defa	random_state=None,	7.07E-
urn	8	ult	verbose=0, warm_start=False)	04
uiii	8	uit		04
			Ridge(alpha=0.1, copy_X=True, fit_intercept=True, max iter=None,	
1_min_ret		Defa	normalize=True, random_state=None, solver='auto',	6.11E-
	8	ult	tol=0.001)	0.116-
urn 1 min ret	0	Defa	LinearRegression(copy_X=True, fit_intercept=True,	5.52E-
	8	ult	n_jobs=1, normalize=True)	5.52E- 04
urn	8	uit	-	04
			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	
1 main		Dof-	max_iter=None,	2 725
1_min_ret	42	Defa	normalize=True, random_state=None, solver='auto',	3.72E-
urn	43	ult	tol=0.001)	04
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
4		D-1	metric='minkowski',	2.265
1_min_ret	4-	Defa	metric_params=None, n_jobs=1, n_neighbors=300,	3.36E-
urn	15	ult	p=1,	04

			weights='distance')	
1_min_ret		Defa	LinearRegression(copy_X=True, fit_intercept=True,	3.27E-
urn	15	ult	n_jobs=1, normalize=True)	04
			Ridge(alpha=0.1, copy_X=True, fit_intercept=True,	
			max_iter=None,	
1_min_ret		Defa	normalize=True, random_state=None, solver='auto',	2.48E-
urn	4	ult	tol=0.001)	04
1_min_ret		Defa	LinearRegression(copy_X=True, fit_intercept=True,	2.21E-
urn	4	ult	n_jobs=1, normalize=False)	04
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
1 min rot		Dofo	min_weight_fraction_leaf=0.0, presort=False,	1 505
1_min_ret	8	Defa ult	random_state=None,	1.58E- 04
urn	0	uit	splitter='best') DecisionTreeRegressor(criterion='mse', max_depth=3,	04
			max_features=None,	
			max_leaf nodes=None, min samples leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
1_min_ret		Defa	random state=None,	1.58E-
urn	8	ult	splitter='best')	04
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
1_min_ret		Defa	random_state=None,	-9.56E-
urn	15	ult	verbose=0, warm_start=False)	06
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
4		D- (n_estimators=30, n_jobs=1, oob_score=False,	0.205
1_min_ret		Defa	random_state=None,	-9.29E-
urn	8	ult	verbose=0, warm_start=False)	05
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
1_min_ret		Defa	min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False,	-1.41E-
	4	ult	random_state=None,	04
urn	4	uit	random_state=None,	L 04

			splitter='best')	
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
1_min_ret		Defa	random_state=None,	-1.41E-
urn	4	ult	splitter='best')	04
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
1_min_ret		Defa	p=1,	-2.05E-
urn	8	ult	weights='distance')	04
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
1_min_ret		Defa	p=2,	-2.26E-
urn	4	ult	weights='distance')	03
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
		_	n_estimators=300, n_jobs=1, oob_score=False,	
1_min_ret		Defa	random_state=None,	-1.40E-
urn	43	ult	verbose=0, warm_start=False)	02
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None, splitter='best'),	
1 min rot		Defa	learning_rate=1.0, loss='linear', n_estimators=100,	-1.80E-
1_min_ret	4	ult	random_state=None)	-1.80E-
urn		uit	BaggingRegressor(base_estimator=None, bootstrap=True,	02
			bootstrap_features=False, max_features=1.0,	
			max samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
1_min_ret		Defa	random state=None,	-2.01E-
urn	15	ult	verbose=0, warm_start=False)	02
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
1_min_ret		Defa	random_state=None,	-3.00E-
urn	8	ult	verbose=0, warm_start=False)	02
1_min_ret		Defa	BaggingRegressor(base_estimator=None, bootstrap=True,	-4.48E-

ĺ			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
			random_state=None,	
			verbose=0, warm_start=False)	
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
1_min_ret		Defa	learning_rate=1.0, loss='linear', n_estimators=50,	-7.08E-
urn	8	ult	random_state=None)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000294344914513,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
1_min_ret		Defa	tol=0.001,	-1.47E-
urn	15	ult	verbose=False)	01
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000294344914513,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
1_min_ret		Defa	tol=0.001,	-1.86E-
urn	4	ult	verbose=False)	01
			SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=7.35862286283e-05,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
1_min_ret		Defa	tol=0.001,	-2.53E-
urn	8	ult	verbose=False)	01
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
		_	splitter='best'),	
1_min_ret		Defa	learning_rate=1.0, loss='linear', n_estimators=50,	-2.70E-
urn	15	ult	random_state=None)	01
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
10 min ra		Dofo	n_estimators=30, n_jobs=1, oob_score=False,	0 165
10_min_re	Λ	Defa	random_state=None,	-8.16E-
turn	4	ult	verbose=0, warm_start=False)	04
10_min_re	4	Defa	Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	-1.17E-

turn		ult	max_iter=None,	03
			normalize=True, random_state=None, solver='auto',	
			tol=0.001)	
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
10_min_re		Defa	normalize=True, random_state=None, solver='auto',	-1.20E-
turn	43	ult	tol=0.001)	03
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
10_min_re		Defa	random_state=None,	-1.20E-
turn	4	ult	verbose=0, warm_start=False)	03
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
10_min_re		Defa	normalize=True, random_state=None, solver='auto',	-1.23E-
turn	15	ult	tol=0.001)	03
			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
10_min_re		Defa	normalize=True, random_state=None, solver='auto',	-1.30E-
turn	8	ult	tol=0.001)	03
			DecisionTreeRegressor(criterion='mse', max_depth=3,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
		- ·	min_weight_fraction_leaf=0.0, presort=False,	4 2 4 5
10_min_re	4	Defa	random_state=None,	-1.34E-
turn	4	ult	splitter='best')	03
			DecisionTreeRegressor(criterion='mse', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
10_min_re		Defa	min_weight_fraction_leaf=0.0, presort=False, random_state=None,	-1.43E-
turn	4	ult	splitter='best')	03
tuiii		uit	ExtraTreesRegressor(bootstrap=False, criterion='mse',	03
			max_depth=2,	
			max_depth=2, max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
10_min_re		Defa	random_state=None,	-1.51E-
turn	8	ult	verbose=0, warm_start=False)	03
10_min_re		Defa	LinearRegression(copy_X=True, fit_intercept=True,	-1.59E-
turn	4	ult	n_jobs=1, normalize=True)	03
curri	- 4	uit	11_003=1, 11011110112C=110E)	US

1			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
10_min_re		Defa	random_state=None,	-1.78E-
turn	15	ult	verbose=0, warm_start=False)	03
10_min_re		Defa	LinearRegression(copy_X=True, fit_intercept=True,	-2.12E-
turn	8	ult	n_jobs=1, normalize=False)	03
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		5.6	n_estimators=100, n_jobs=1, oob_score=False,	0.455
10_min_re	15	Defa	random_state=None,	-3.45E-
turn	15	ult	verbose=0, warm_start=False)	03
10_min_re turn	15	Defa ult	LinearRegression(copy_X=True, fit_intercept=True,	-3.55E-
turn	15	uit	n_jobs=1, normalize=True)	03
			RandomForestRegressor(bootstrap=True, criterion='mse', max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
10_min_re		Defa	random_state=None,	-3.57E-
turn	8	ult	verbose=0, warm_start=False)	03
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
10_min_re		Defa	p=2,	-3.72E-
turn	15	ult	weights='uniform')	03
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
10_min_re		Defa	p=1,	-6.26E-
turn	4	ult	weights='uniform')	03
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300,	
10_min_re		Defa	p=2,	-6.45E-
turn	8	ult	weights='uniform')	03
10_min_re	0	Defa	DecisionTreeRegressor(criterion='mse', max_depth=1,	-6.56E-
turn	8	ult	max features=None,	0.302
	<u> </u>	J		0.5

			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best')	
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None, max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
10_min_re		Defa	random_state=None,	-6.56E-
turn	8	ult	splitter='best')	03
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
10		D - f -	min_weight_fraction_leaf=0.0, presort=False,	7.405
10_min_re turn	15	Defa ult	random_state=None, splitter='best')	-7.40E- 03
tarri	13	uit	DecisionTreeRegressor(criterion='mse', max_depth=1,	03
			max_features=None,	
			max leaf nodes=None, min samples leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
10_min_re		Defa	random_state=None,	-7.40E-
turn	15	ult	splitter='best')	03
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000882179385963,	
10_min_re		Defa	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True, tol=0.001,	-3.46E-
turn	15	ult	verbose=False)	02
tarri	13	<u> </u>	BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
10_min_re		Defa	random_state=None,	-4.20E-
turn	43	ult	verbose=0, warm_start=False)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000882179385963,	
10_min_re		Defa	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True, tol=0.001,	-4.59E-
turn	8	ult	verbose=False)	-4.59L- 02
33111	3	u	AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
10_min_re		Defa	min_samples_split=2,	-4.79E-
turn	4	ult	min_weight_fraction_leaf=0.0, presort=False,	02

			random_state=None,	
			splitter='best'),	
			learning_rate=1.0, loss='linear', n_estimators=400,	
			random_state=None)	
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
10 min ro		Defa	splitter='best'),	-6.10E-
10_min_re turn	8	ult	learning_rate=1.0, loss='linear', n_estimators=100, random_state=None)	02
tuiii	8	uit	SVR(C=0.01, cache_size=1024, coef0=0.0, degree=3,	02
			epsilon=0.000882179385963,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
10 min re		Defa	tol=0.001,	-6.70E-
turn	4	ult	verbose=False)	02
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
10_min_re		Defa	random_state=None,	-7.56E-
turn	15	ult	verbose=0, warm_start=False)	02
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
10		Defe	n_estimators=300, n_jobs=1, oob_score=False,	0.115
10_min_re	8	Defa ult	random_state=None,	-9.11E- 02
turn	0	uit	verbose=0, warm_start=False) BaggingRegressor(base_estimator=None, bootstrap=True,	02
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
10_min_re		Defa	random state=None,	-1.06E-
turn	4	ult	verbose=0, warm_start=False)	01
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	2 2 -
10_min_re	4-	Defa	learning_rate=1.0, loss='linear', n_estimators=50,	-3.04E-
turn	15	ult	random_state=None)	01
20_min_re	4 -	Defa	Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	-2.52E-
turn	15	ult	max_iter=None,	03

			normalize=True, random_state=None, solver='auto',	
			tol=0.001)	
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
20_min_re		Defa	normalize=True, random_state=None, solver='auto',	-2.57E-
turn	4	ult	tol=0.001)	03
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
20_min_re		Defa	normalize=True, random_state=None, solver='auto',	-2.61E-
turn	8	ult	tol=0.001)	03
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
20 min re		Defa	random_state=None,	-2.64E-
turn	4	ult	verbose=0, warm_start=False)	03
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
20_min_re		Defa	normalize=True, random_state=None, solver='auto',	-2.66E-
turn	43	ult	tol=0.001)	03
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
20		Defe	n_estimators=10, n_jobs=1, oob_score=False,	2 745
20_min_re	8	Defa ult	random_state=None,	-2.74E-
turn	0	uit	verbose=0, warm_start=False) ExtraTreesRegressor(bootstrap=False, criterion='mse',	03
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
20_min_re		Defa	random_state=None,	-3.03E-
turn	15	ult	verbose=0, warm_start=False)	03
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
20		, ·	n_estimators=100, n_jobs=1, oob_score=False,	2 27-
20_min_re	<i>A</i>	Defa	random_state=None,	-3.37E-
turn	4	ult	verbose=0, warm_start=False)	03

20_min_re		Defa	LinearRegression(copy_X=True, fit_intercept=True,	-4.10E-
turn	4	ult	n_jobs=1, normalize=True)	03
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20_min_re	_	Defa	random_state=None,	-4.83E-
turn	4	ult	splitter='best')	03
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20_min_re		Defa	random_state=None,	-4.83E-
turn	4	ult	splitter='best')	03
20_min_re	7	Defa	LinearRegression(copy X=True, fit intercept=True,	-5.23E-
turn	8	ult	n_jobs=1, normalize=True)	03
	_		RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
20_min_re		Defa	random_state=None,	-5.99E-
turn	8	ult	verbose=0, warm_start=False)	03
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
20_min_re		Defa	random state=None,	-6.20E-
turn	15	ult	verbose=0, warm_start=False)	0.202
		G. F. C	DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20_min_re		Defa	random_state=None,	-7.91E-
turn	8	ult	splitter='best')	03
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
20_min_re		Defa	max_leaf_nodes=None, min_samples_leaf=1,	-7.91E-
turn	8	ult	min_samples_split=2,	03

			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best')	
20_min_re		Defa	LinearRegression(copy_X=True, fit_intercept=True,	-8.35E-
turn	15	ult	n_jobs=1, normalize=False)	03
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20_min_re		Defa	random_state=None,	-9.59E-
turn	15	ult	splitter='best')	03
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
20_min_re		Defa	random_state=None,	-9.59E-
turn	15	ult	splitter='best')	03
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
		- 6	metric_params=None, n_jobs=1, n_neighbors=300,	
20_min_re		Defa	p=2,	-9.92E-
turn	15	ult	weights='uniform')	03
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
20		D - f -	metric_params=None, n_jobs=1, n_neighbors=300,	4 4 5 5
20_min_re	4	Defa	p=1,	-1.15E-
turn	4	ult	weights='uniform')	02
			KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski',	
			metric_ninkowski, metric_params=None, n_jobs=1, n_neighbors=300,	
20 min ro		Defa		-1.41E-
20_min_re turn	8	_	p=1, weights='uniform')	-1.41E- 02
turri	0	uit	AdaBoostRegressor(base_estimator=DecisionTreeRegresso	02
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
20_min_re		Defa	learning_rate=1.0, loss='linear', n_estimators=400,	-2.35E-
turn	8	ult	random state=None)	02
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
20_min_re		Defa	max_leaf_nodes=None, min_samples_leaf=1,	-2.98E-
turn	4	ult	min_samples_split=2,	02
-	•			

		ì	min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
			learning_rate=1.0, loss='linear', n_estimators=200,	
			random_state=None)	
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000304687250975,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
20_min_re		Defa	tol=0.001,	-3.24E-
turn	15	ult	verbose=False)	02
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False, random_state=None,	
			splitter='best'),	
20_min_re		Defa	learning rate=1.0, loss='linear', n estimators=400,	-3.57E-
turn	15	ult	random_state=None)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	-
			epsilon=0.000304687250975,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
20_min_re		Defa	tol=0.001,	-4.06E-
turn	8	ult	verbose=False)	02
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
		_	n_estimators=300, n_jobs=1, oob_score=False,	
20_min_re		Defa	random_state=None,	-4.56E-
turn	43	ult	verbose=0, warm_start=False)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.0012187490039,	
20 min ro		Dofa	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True, tol=0.001,	-4.77E-
20_min_re turn	4	Defa ult	verbose=False)	-4.77E- 02
tarri	4	uit	BaggingRegressor(base_estimator=None, bootstrap=True,	02
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n estimators=300, n jobs=1, oob score=False,	
20_min_re		Defa	random_state=None,	-9.00E-
turn	15	ult	verbose=0, warm_start=False)	02
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
20_min_re		Defa	random_state=None,	-1.09E-
turn	4	ult	verbose=0, warm_start=False)	01

	İ		BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
20_min_re		Defa	random_state=None,	-1.09E-
turn	8	ult	verbose=0, warm_start=False)	01
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
40_min_re		Defa	normalize=True, random_state=None, solver='auto',	-4.88E-
turn	43	ult	tol=0.001)	03
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
40_min_re		Defa	normalize=True, random_state=None, solver='auto',	-5.00E-
turn	8	ult	tol=0.001)	03
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
40_min_re		Defa	normalize=True, random_state=None, solver='auto',	-5.00E-
turn	15	ult	tol=0.001)	03
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
40_min_re		Defa	normalize=True, random_state=None, solver='auto',	-5.22E-
turn	4	ult	tol=0.001)	03
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
40_min_re		Defa	random_state=None,	-5.24E-
turn	15	ult	verbose=0, warm_start=False)	03
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
40_min_re		Defa	random_state=None,	-5.34E-
turn	8	ult	verbose=0, warm_start=False)	03
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
40_min_re		Defa	random_state=None,	-5.72E-
turn	4	ult	verbose=0, warm_start=False)	03
	•	u	verbose o, warm_start raise,	

turn		ult	max_depth=1,	03
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
			random_state=None,	
			verbose=0, warm_start=False)	
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
40_min_re		Defa	random_state=None,	-7.74E-
turn	4	ult	verbose=0, warm_start=False)	03
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1, oob_score=False,	
40_min_re		Defa	random_state=None,	-7.77E-
turn	8	ult	verbose=0, warm_start=False)	03
40_min_re		Defa	LinearRegression(copy_X=True, fit_intercept=True,	-8.14E-
turn	4	ult	n_jobs=1, normalize=True)	03
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
40_min_re		Defa	random_state=None,	-8.65E-
turn	8	ult	splitter='best')	03
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
40_min_re		Defa	random_state=None,	-8.65E-
turn	8	ult	splitter='best')	03
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
40_min_re		Defa	p=2,	-9.96E-
40_111111_16		Dela	p=2,	-3.30L-

1			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
40_min_re		Defa	random_state=None,	-1.02E-
turn	15	ult	splitter='best')	02
tarri	13	uit	DecisionTreeRegressor(criterion='mse', max_depth=1,	02
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
40_min_re		Defa	random_state=None,	-1.02E-
turn	15	ult	splitter='best')	02
40_min_re		Defa	LinearRegression(copy X=True, fit intercept=True,	-1.18E-
turn	8	ult	n_jobs=1, normalize=True)	02
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
40_min_re		Defa	random_state=None,	-1.20E-
turn	4	ult	splitter='best')	02
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
		_	min_weight_fraction_leaf=0.0, presort=False,	
40_min_re		Defa	random_state=None,	-1.20E-
turn	4	ult	splitter='best')	02
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
40 min ro		Defa	splitter='best'),	-1.29E-
40_min_re turn	15	ult	learning_rate=1.0, loss='linear', n_estimators=400, random_state=None)	-1.29E- 02
tuiii	13	uit	AdaBoostRegressor(base_estimator=DecisionTreeRegresso	UZ
			r(criterion='mse', max_depth=1, max_features=None,	
			max leaf nodes=None, min samples leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
40_min_re		Defa	splitter='best'),	-1.37E-
turn	8	ult	learning_rate=1.0, loss='linear', n_estimators=50,	02
tarri	0	uit		02

			random_state=None)	
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
40_min_re		Defa	p=1,	-1.40E-
turn	8	ult	weights='uniform')	02
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
40 min m		Dofo	splitter='best'),	1 405
40_min_re turn	4	Defa ult	learning_rate=1.0, loss='linear', n_estimators=50, random_state=None)	-1.40E- 02
tuiii	4	uit	KNeighborsRegressor(algorithm='auto', leaf_size=30,	02
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
40_min_re		Defa	p=2,	-1.52E-
turn	4	ult	weights='uniform')	02
40_min_re		Defa	LinearRegression(copy_X=True, fit_intercept=True,	-1.68E-
turn	15	ult	n_jobs=1, normalize=False)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000426505451693,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
40_min_re		Defa	tol=0.001,	-2.22E-
turn	15	ult	verbose=False)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000426505451693,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
40_min_re		Defa	tol=0.001,	-2.62E-
turn	8	ult	verbose=False)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000426505451693,	
40_min_re		Defa	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True, tol=0.001,	-3.72E-
turn	4	ult	verbose=False)	-3.72L- 02
turri		uit	BaggingRegressor(base_estimator=None, bootstrap=True,	02
			bootstrap features=False, max features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
40_min_re		Defa	random_state=None,	-6.53E-
turn	43	ult	verbose=0, warm_start=False)	02
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
40_min_re		Defa	max_samples=1.0,	-9.54E-
turn	15	ult	n_estimators=300, n_jobs=1, oob_score=False,	02

		ì	random_state=None,	
			verbose=0, warm_start=False)	
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
40_min_re		Defa	random_state=None,	-1.15E-
turn	4	ult	verbose=0, warm_start=False)	01
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
40		5.6	n_estimators=300, n_jobs=1, oob_score=False,	4 455
40_min_re	0	Defa	random_state=None,	-1.15E-
turn	8	ult	verbose=0, warm_start=False)	01
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=4, max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
5_min_ret		Defa	random_state=None,	-1.13E-
urn	4	ult	verbose=0, warm_start=False)	04
			Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	
			max iter=None,	
5_min_ret		Defa	normalize=True, random_state=None, solver='auto',	-1.66E-
urn	15	ult	tol=0.001)	04
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		5.6	n_estimators=10, n_jobs=1, oob_score=False,	2 445
5_min_ret	4	Defa	random_state=None,	-2.44E-
urn	4	ult	verbose=0, warm_start=False)	04
			DecisionTreeRegressor(criterion='mse', max_depth=1, max_features=None,	
			max_leafures=None, max_leaf nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
5_min_ret		Defa	random state=None,	-3.41E-
urn	4	ult	splitter='best')	04
*****	'		DecisionTreeRegressor(criterion='mse', max_depth=1,	<u> </u>
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
5_min_ret		Defa	min_samples_split=2,	-3.41E-
urn	4	ult	min_weight_fraction_leaf=0.0, presort=False,	04

			random_state=None,	
			splitter='best')	
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
F		D - t -	n_estimators=30, n_jobs=1, oob_score=False,	4 4 4 5
5_min_ret	4.5	Defa	random_state=None,	-4.44E-
urn	15	ult	verbose=0, warm_start=False)	04
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
5_min_ret		Defa	normalize=True, random_state=None, solver='auto',	-4.55E-
urn	43	ult	tol=0.001)	04
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
5_min_ret		Defa	random_state=None,	-4.80E-
urn	8	ult	verbose=0, warm_start=False)	04
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
5_min_ret		Defa	random state=None,	-5.28E-
urn	15	ult	verbose=0, warm_start=False)	04
uiii	15	uit	Ridge(alpha=1.0, copy_X=True, fit_intercept=True,	04
			max_iter=None,	
5_min_ret		Defa	normalize=True, random state=None, solver='auto',	-5.30E-
	8	ult	tol=0.001)	-3.30E- 04
urn	0	uit	•	04
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
		- ·	max_iter=None,	6 225
5_min_ret	4	Defa	normalize=True, random_state=None, solver='auto',	-6.22E-
urn	4	ult	tol=0.001)	04
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
5_min_ret		Defa	random_state=None,	-7.32E-
urn	8	ult	splitter='best')	04
5_min_ret	8	Defa	DecisionTreeRegressor(criterion='mse', max_depth=1,	-7.32E-

max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') RandomGrorestRegressor(bootstrap=True, criterion='mse', max_depth=1, max_features='auto', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	urn		ult	max features=None,	04
min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') RandomForestRegressor(bootstrap=True, criterion='mse', max_depth=1, max_features='auto', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, nobs_score=False, random_state=None, urn Befa urn Defa urn LinearRegression(copy_X=True, fit_intercept=True, min_weight_fraction_leaf=0.0, presort=False, random_state=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, max_leaf_nodes=None, min_weight_fraction_leaf=0.0, presort=False, random_state=None, max_leaf_nodes=None, min_weight_fraction_leaf=0.0, presort=False, random_state=None, min_weight_fraction_leaf=0.0, presort=false, random_state=Non				max_leaf_nodes=None, min_samples_leaf=1,	
random_state=None, splitter='best') RandomForestRegressor(bootstrap=True, criterion='mse', max_depth=1, max_features='auto', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimatorsor(), most_alse) 5_min_ret urn					
random_state=None, splitter='best') RandomForestRegressor(bootstrap=True, criterion='mse', max_depth=1, max_features='auto', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimatorsor(), most_alse) 5_min_ret urn				min_weight_fraction_leaf=0.0, presort=False,	
Splitter='best') RandomForestRegressor(bootstrap=True, criterion='mse', max_depth=1, max_features='auto', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, warm_start=False) O4					
S_min_ret Defa util verbose=0, warm_start=False) -8.99E-verbose=0, warm_start=False) -9.4 -8.99E-verbose=0, warm_start=False) -9.4 -8.99E-verbose=0, warm_start=False) -9.4 -8.99E-verbose=0, warm_start=False) -9.4 -9.4 -1.17E-verbose=0, warm_start=False) -9.4 -9.4 -1.17E-verbose=0, warm_start=False) -9.4 -9.4 -9.4 -1.17E-verbose=0, warm_start=False) -9.4 -9.4 -9.4 -1.47E-verbose=0, warm_start=False) -1.47E-verbose=0, warm_start=					
S_min_ret Defa util verbose=0, warm_start=False) -8.99E-verbose=0, warm_start=False) -9.4 -8.99E-verbose=0, warm_start=False) -9.4 -8.99E-verbose=0, warm_start=False) -9.4 -8.99E-verbose=0, warm_start=False) -9.4 -9.4 -1.17E-verbose=0, warm_start=False) -9.4 -9.4 -1.17E-verbose=0, warm_start=False) -9.4 -9.4 -9.4 -1.17E-verbose=0, warm_start=False) -9.4 -9.4 -9.4 -1.47E-verbose=0, warm_start=False) -1.47E-verbose=0, warm_start=					
max_features='auto', max_leaf_nodes=None, min_samples_leaf=1, min_ret verbose=0, warm_start=False) 04				1	
min_samples_leaf=1,					
min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, -8.99E-urn 8 ult verbose=0, warm_start=False) 04 04 04 04 05 05 04 04					
5_min_ret urn Defa ult verbose=0, warm_start=False) -8.99E-					
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um 8 ult verbose=0, warm_start=False) 04 5_min_ret urn Defa ult LinearRegression(copy_X=True, fit_intercept=True, njobs=1, normalize=True) -1.17E- 03 DecisionTreeRegressor(criterion='mse', max_depth=1, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, -1.47E- 03 5_min_ret urn Defa urn DecisionTreeRegressor(criterion='mse', max_depth=1, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, -1.47E- 03 5_min_ret urn Defa ult LinearRegression(copy_X=True, fit_intercept=True, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, min_weight_fraction_leaf=0.0, presort=False, min_weight_fraction_leaf=0.0, presort=False, min_weight_fraction_leaf=0.0, presort=False, min_weight_fraction_leaf=0.0, presort=False, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, leaf=1, min_samples_split=2, min_weight	5 min ret		Defa		-8.99E-
5_min_ret urn 4 ult n_jobs=1, normalize=True, n_jobs=1, normalize=True) 03 DecisionTreeRegressor(criterion='mse', max_depth=1, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') 03 DecisionTreeRegressor(criterion='mse', max_depth=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') 03 5_min_ret urn 15 ult splitter='best') 03 KNeighborsRegressor(copy_X=True, fit_intercept=True, n_jobs=1, n_ormalize=True) 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, metric=minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, ult n_jobs=1, normalize=True) 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, -3.46E-urn 8 ult weights='uniform') 03 S_min_ret urn 8 ult weights='uniform') 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E-incaregressor(algorithm='auto', leaf_size=30, -6.12		8		<u> </u>	_
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max_features=None,	-				
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min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, 5_min_ret urn 15 ult splitter='best') DecisionTreeRegressor(criterion='mse', max_depth=1, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, 5_min_ret urn 15 ult splitter='best') 03 5_min_ret urn 15 ult splitter='best') 03 5_min_ret urn 16 ult splitter='best') 03 6_min_ret urn 17 ult splitter='best') 03 6_min_ret urn 18 ult splitter='best') 03 6_min_ret urn 19 ult splitter='best') 03 6_metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300,					
5_min_ret urnDefa ultmin_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best')-1.47E- 03DecisionTreeRegressor(criterion='mse', max_depth=1, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False,-1.47E- 035_min_ret urnDefa ultsplitter='best')035_min_ret urnDefa ultLinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)-1.57E- 03S_min_ret urnDefa ultKNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300,5_min_ret urnDefa ult weights='uniform')-3.46E- -3.46E- -3.46E- urn0 5_min_retDefa ult weights='uniform')-3.46E- -3					
5_min_ret urnDefa ultrandom_state=None, splitter='best')-1.47E- 03DecisionTreeRegressor(criterion='mse', max_depth=1, max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False,-1.47E-5_min_ret urnDefa ult splitter='best')-1.47E- 035_min_ret urnDefa ultLinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)-1.57E- 035_min_ret urnDefa ultKNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, Defa ult-1.75E- 035_min_ret urnDefa ultLinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)-1.75E- 035_min_ret urnDefa ultLinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)-1.96E- 03KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, metric_barams=None, n_jobs=1, n_neighbors=300, metric_barams=None, n_jobs=1, n_neighbors=300, metric_barams=None, n_jobs=1, n_neighbors=300, met					
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DecisionTreeRegressor(criterion='mse', max_depth=1, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, 5_min_ret		15			
max_features=None,				•	
max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, 5_min_ret urn 15 ult splitter='best') 03 5_min_ret urn 8 ult n_jobs=1, normalize=True) 15 ult weights='uniform') 03 5_min_ret urn 15 ult weights='uniform') 03 5_min_ret urn 15 ult weights=True) 03 KNeighborsRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True) 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, metric=minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, urn 15 ult weights='uniform') 03 KNeighborsRegression(copy_X=True, fit_intercept=True, urn 15 ult n_jobs=1, normalize=True) 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, metric=minkowski', metric_params=None, n_jobs=1, n_neighbors=300, metric=minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, urn 8 ult weights='uniform') 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, 03					
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5_min_ret urnDefa ultLinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)-1.57E- 03KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, urn-1.75E- 035_min_ret urnDefa ultLinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)-1.96E- 03KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, urn-3.46E- 035_min_ret urnDefa ultWeights='uniform')-3.46E- 035_min_retDefaKNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E-		15			
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KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, -1.75E-urn 15 ult weights='uniform') 03 5_min_ret urn 15 ult weights='uniform') 03 5_min_ret urn 15 ult n_jobs=1, normalize=True, o3 KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, metric_params=None, n_jobs=1, n_neighbors=300, p=1, weights='uniform') 03 5_min_ret urn 8 ult weights='uniform') 03 KNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E-		8	ult		
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5_min_ret urnDefa 15p=1, weights='uniform')-1.75E- 035_min_ret urnDefa 15LinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)-1.96E- 03KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, urn-3.46E- 3.46E- 4.5min_retUefa urnDefa Weights='uniform')-3.46E- 035_min_retDefa DefaKNeighborsRegressor(algorithm='auto', leaf_size=30, 6.12E-				1	
urn15ultweights='uniform')035_min_ret urnDefa 15LinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)-1.96E- 03KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, urnDefa 8 ult-3.46E- weights='uniform')-3.46E- 035_min_ret urnDefa befa UltKNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E6.12E-	5 min ret		Defa		-1.75E-
5_min_ret urnDefa 15LinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)-1.96E- 03KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, urnDefa ult-3.46E- 035_min_ret urnDefa ultWeights='uniform')035_min_retDefa VNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E6.12E-		15	ult	1 '	03
urn15ultn_jobs=1, normalize=True)03KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, p=1, -3.46E-urnDefa ult weights='uniform')-3.46E-uniform')5_min_retDefa KNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E-	5 min ret		Defa	•	-1.96E-
KNeighborsRegressor(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, 5_min_ret Defa ult weights='uniform') -3.46E-urn 8 ult weights='uniform') 03 5_min_ret Defa KNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E-		15		_	
metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300, 5_min_ret urn					
metric_params=None, n_jobs=1, n_neighbors=300, 5_min_ret urn Bult weights='uniform') 5_min_ret Defa KNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E-					
5_min_ret urnDefa 8 Ultp=1, weights='uniform')-3.46E- 035_min_retDefaKNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E6.12E-					
urn8ultweights='uniform')035_min_retDefaKNeighborsRegressor(algorithm='auto', leaf_size=30,-6.12E-	5 min ret		Defa		-3.46E-
5_min_ret Defa KNeighborsRegressor(algorithm='auto', leaf_size=30, -6.12E-		8		1 '	
	urn	4	ult	metric='minkowski',	03

			metric_params=None, n_jobs=1, n_neighbors=300,	
			p=2,	
			weights='uniform')	
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
		- 6	n_estimators=300, n_jobs=1, oob_score=False,	
5_min_ret	42	Defa	random_state=None,	-3.42E-
urn	43	ult	verbose=0, warm_start=False)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.00063969627449, gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
5_min_ret		Defa	tol=0.001,	-5.03E-
urn	15	ult	verbose=False)	02
uiii	13	are	BaggingRegressor(base_estimator=None, bootstrap=True,	02
			bootstrap features=False, max features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
5_min_ret		Defa	random_state=None,	-5.09E-
urn	15	ult	verbose=0, warm_start=False)	02
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
5_min_ret		Defa	random_state=None,	-6.58E-
urn	8	ult	verbose=0, warm_start=False)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.00063969627449, gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
5_min_ret		Defa	tol=0.001,	-7.05E-
urn	8	ult	verbose=False)	-7.03L- 02
uiii	0	arc	SVR(C=0.01, cache size=1024, coef0=0.0, degree=3,	02
			epsilon=0.00063969627449,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
5_min_ret		Defa	tol=0.001,	-8.05E-
urn	4	ult	verbose=False)	02
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
5_min_ret		Defa	random_state=None,	-9.74E-
urn	4	ult	verbose=0, warm_start=False)	02
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
L wain wat		Dota	max_leaf_nodes=None, min_samples_leaf=1,	1 205
5_min_ret	/1	Defa ult	min_samples_split=2,	-1.38E-
urn	4	uit	min_weight_fraction_leaf=0.0, presort=False,	01

			random_state=None,	
			splitter='best'),	
			learning_rate=1.0, loss='linear', n_estimators=50,	
			random_state=None)	
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=4, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
5_min_ret		Defa	learning_rate=1.0, loss='linear', n_estimators=50,	-2.78E-
urn	8	ult	random_state=None)	01
			AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=2, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
5_min_ret		Defa	learning_rate=1.0, loss='linear', n_estimators=50,	-2.79E-
urn	15	ult	random_state=None)	01
			ExtraTreesRegressor(bootstrap=False, criterion='mse',	
			max_depth=2,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
80_min_re		Defa	n_estimators=10, n_jobs=1, oob_score=False, random_state=None,	-5.73E-
turn	15	ult	verbose=0, warm_start=False)	-3.73E-
turri	1.5	uit	ExtraTreesRegressor(bootstrap=False, criterion='mse',	05
			max_depth=4,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
80_min_re		Defa	random_state=None,	-6.04E-
turn	8	ult	verbose=0, warm_start=False)	03
			Ridge(alpha=10.0, copy X=True, fit intercept=True,	
			max_iter=None,	
80_min_re		Defa	normalize=True, random_state=None, solver='auto',	-8.34E-
turn	8	ult	tol=0.001)	03
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
80_min_re		Defa	normalize=True, random_state=None, solver='auto',	-8.35E-
turn	43	ult	tol=0.001)	03
80 min re	4	Defa	ExtraTreesRegressor(bootstrap=False, criterion='mse',	-8.39E-

turn		ult	max_depth=4,	03
		G	max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n estimators=30, n jobs=1, oob score=False,	
			random_state=None,	
			verbose=0, warm_start=False)	
			Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max_iter=None,	
80_min_re		Defa	normalize=True, random_state=None, solver='auto',	-8.39E-
turn	15	ult	tol=0.001)	03
carri		a.c	Ridge(alpha=10.0, copy_X=True, fit_intercept=True,	
			max iter=None,	
80_min_re		Defa	normalize=True, random_state=None, solver='auto',	-8.71E-
turn	4	ult	tol=0.001)	0.712
turri		aic	RandomForestRegressor(bootstrap=True, criterion='mse',	03
			max depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min samples leaf=1,	
			min_samples_split=2,	
			min weight fraction leaf=0.0,	
			n_estimators=100, n_jobs=1, oob_score=False,	
80_min_re		Defa	random_state=None,	-9.23E-
turn	4	ult	verbose=0, warm_start=False)	03
turri	4	uit	DecisionTreeRegressor(criterion='mse', max_depth=1,	03
			_ ,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
00 min ro		Dofo	min_weight_fraction_leaf=0.0, presort=False,	-9.49E-
80_min_re	1	Defa	random_state=None,	
turn	4	ult	splitter='best')	03
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
00		D - f -	min_weight_fraction_leaf=0.0, presort=False,	0.405
80_min_re		Defa	random_state=None,	-9.49E-
turn	4	ult	splitter='best')	03
			RandomForestRegressor(bootstrap=True, criterion='mse',	
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		_	n_estimators=30, n_jobs=1, oob_score=False,	
80_min_re		Defa	random_state=None,	-1.02E-
turn	15	ult	verbose=0, warm_start=False)	02

			RandomForestRegressor(bootstrap=True, criterion='mse',	1
			max_depth=1,	
			max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1, oob_score=False,	
80_min_re	_	Defa	random_state=None,	-1.05E-
turn	8	ult	verbose=0, warm_start=False)	02
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=300,	
80_min_re		Defa	p=1,	-1.10E-
turn	8	ult	weights='uniform')	02
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
80_min_re		Defa	random_state=None,	-1.18E-
turn	15	ult	splitter='best')	02
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None, max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
80_min_re		Defa	random_state=None,	-1.18E-
turn	15	ult	splitter='best')	02
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
80_min_re	4-	Defa	p=1,	-1.19E-
turn	15	ult	weights='uniform')	02
80_min_re	4	Defa ult	LinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=True)	-1.29E- 02
turn	4	uit	DecisionTreeRegressor(criterion='mse', max_depth=1,	02
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
80_min_re		Defa	random_state=None,	-1.44E-
turn	8	ult	splitter='best')	02
			DecisionTreeRegressor(criterion='mse', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
80_min_re	_	Defa	min_samples_split=2,	-1.44E-
turn	8	ult	min_weight_fraction_leaf=0.0, presort=False,	02

			random_state=None,	ĺ
			splitter='best')	
			KNeighborsRegressor(algorithm='auto', leaf_size=30,	
			metric='minkowski',	
			metric_params=None, n_jobs=1, n_neighbors=300,	
80_min_re		Defa	p=2,	-1.57E-
turn	4	ult	weights='uniform')	02
80_min_re	0	Defa	LinearRegression(copy_X=True, fit_intercept=True,	-2.02E-
turn	8	ult	n_jobs=1, normalize=True) SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	02
			epsilon=0.000596960445968,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
80_min_re		Defa	tol=0.001,	-2.61E-
turn	8	ult	verbose=False)	02
80_min_re		Defa	LinearRegression(copy_X=True, fit_intercept=True,	-2.64E-
turn	15	ult	n_jobs=1, normalize=True)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.00238784178387,	
			gamma='auto', kernel='rbf', max_iter=-1, shrinking=True,	
80_min_re		Defa	tol=0.001,	-2.75E-
turn	4	ult	verbose=False)	02
			SVR(C=0.0001, cache_size=1024, coef0=0.0, degree=3,	
			epsilon=0.000596960445968,	
80_min_re		Defa	gamma='auto', kernel='rbf', max_iter=-1, shrinking=True, tol=0.001,	-3.02E-
turn	15	ult	verbose=False)	02
tarri		u.c	AdaBoostRegressor(base_estimator=DecisionTreeRegresso	
			r(criterion='mse', max_depth=1, max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0, presort=False,	
			random_state=None,	
			splitter='best'),	
80_min_re	4	Defa	learning_rate=1.0, loss='linear', n_estimators=400,	-3.33E-
turn	4	ult	random_state=None)	02
			BaggingRegressor(base_estimator=None, bootstrap=True, bootstrap features=False, max features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
80_min_re		Defa	random_state=None,	-9.41E-
turn	43	ult	verbose=0, warm_start=False)	02
			BaggingRegressor(base_estimator=None, bootstrap=True,	
			bootstrap_features=False, max_features=1.0,	
			max_samples=1.0,	
			n_estimators=300, n_jobs=1, oob_score=False,	
80_min_re		Defa	random_state=None,	-1.08E-
turn	4	ult	verbose=0, warm_start=False)	01

20 min ro		Defe	AdaBoostRegressor(base_estimator=DecisionTreeRegressor(criterion='mse', max_depth=1, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'),	1 125
80_min_re turn	8	Defa ult	learning_rate=1.0, loss='linear', n_estimators=100, random state=None)	-1.12E- 01
tuiii	0	uit	AdaBoostRegressor(base_estimator=DecisionTreeRegressor(criterion='mse', max_depth=2, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'),	O1
80_min_re		Defa	learning_rate=1.0, loss='linear', n_estimators=400,	-1.30E-
turn	15	ult	random_state=None)	01
			BaggingRegressor(base_estimator=None, bootstrap=True, bootstrap_features=False, max_features=1.0, max_samples=1.0, n_estimators=300, n_jobs=1, oob_score=False,	
80_min_re		Defa	random_state=None,	-1.35E-
turn	15	ult	verbose=0, warm_start=False)	01
			BaggingRegressor(base_estimator=None, bootstrap=True, bootstrap_features=False, max_features=1.0, max_samples=1.0, n_estimators=300, n_jobs=1, oob_score=False,	
80_min_re		Defa	random_state=None,	-1.42E-
turn	8	ult	verbose=0, warm_start=False)	01

Cross-validation results for classification methods

C1033 Validation	results for cla	33111Catio	inctious	
	num_featur	scorin		
response	es	g	best_estimator	best_score
			SVC(C=1, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0294301
1_min_cat	15	Z	tol=0.001, verbose=False)	66
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
		trade	min_samples_leaf=1, min_samples_split=2,	0.0262251
1_min_cat	43	Z	min_weight_fraction_leaf=0.0,	37

1	ļ		n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
		trade	n_neighbors=300, p=2,	0.0246300
1_min_cat	15	Z	weights='distance')	58
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		A al a	n_estimators=100, n_jobs=1,	0.0224224
1 min cat	15	trade	oob_score=False, random_state=None,	0.0224231
1_min_cat	15	Z	verbose=0, warm_start=False) RandomForestClassifier(bootstrap=True,	66
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0221679
1_min_cat	15	Z	warm_start=False)	12
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
	_	trade	n_neighbors=5, p=1,	0.0201035
1_min_cat	4	Z	weights='distance')	89
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
		A al a	metric_params=None, n_jobs=1,	0.0100310
1 min cat	8	trade	n_neighbors=100, p=1,	0.0199310
1_min_cat	8	Z	weights='uniform') AdaBoostClassifier(algorithm='SAMME.R',	47
			Audboostclassifier(algoritifff= SAMME.R,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4,	
			max_features=None,	
			max_leaf nodes=None, min samples leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
	1		mini weight maction lear-o.o,	
		trade	presort=False, random_state=None,	0.0197553

			learning_rate=1.0, n_estimators=50,	
			random_state=None)	
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=14,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random_state=None,	0.0187659
1_min_cat	15	Z	splitter='best')	46
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='sqrt',	
			max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2,	
			min weight fraction leaf=0.0,	
			n estimators=30, n jobs=1,	
			oob score=False, random state=None,	
		trade	verbose=0,	0.0182828
1_min_cat	43	Z	warm_start=False)	88
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=28,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
	_	trade	presort=False, random_state=None,	0.0178460
1_min_cat	4	Z	splitter='best')	45
			SVC(C=1, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3, gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0178131
1_min_cat	8	Z	tol=0.001, verbose=False)	53
<u> </u>		_	ExtraTreesClassifier(bootstrap=False,	33
			class weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0173667
1_min_cat	8	Z	verbose=0, warm_start=False)	33
			RandomForestClassifier(bootstrap=True,	
		trade	class_weight=None, criterion='gini',	0.0171746
1_min_cat	8	Z	max_depth=64, max_features='sqrt',	72

I	1	I	may loof nodes-None	ı
			max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0,	
			warm_start=False)	
			SVC(C=1, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0170264
1_min_cat	4	Z	tol=0.001, verbose=False)	83
		trade		0.0168854
1_min_cat	8	Z	voting_hard	94
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0167811
1_min_cat	4	Z	warm_start=False)	57
		trade		0.0166041
1_min_cat	15	Z	GaussianNB	72
		trade		0.0157227
1_min_cat	15	Z	voting_soft	36
		trade	3_	0.0145947
1_min_cat	15	Z	voting_hard	48
	13	trade	70tm6_nara	0.0145198
1_min_cat	8	Z	voting_soft	03
<u> </u>	3	_	AdaBoostClassifier(algorithm='SAMME.R',	- 03
			Addboosteldssiffer (digorithm) - SANNIVIE.IX,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max features=None,	
			max_leafures=None, min_samples_leaf=1,	
			min samples split=2,	
			min_samples_spiit=2, min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
		A 1	splitter='best'),	0.0443533
				11111/1252)
4		trade	learning_rate=1.0, n_estimators=400,	0.0143532
1_min_cat 1_min_cat	8 8	Z trade	random_state=None) DecisionTreeClassifier(class_weight=None,	0.0145332

Í	Ī	l -	anibanian lainil maay dambla 4	47
		Z	criterion='gini', max_depth=4,	17
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best')	
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit intercept=True, intercept scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0117389
1	4.5			
1_min_cat	15	Z	warm_start=False)	02
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0115678
1_min_cat	8	Z	warm_start=False)	85
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		4	n_estimators=10, n_jobs=1,	0.0440040
	_	trade	oob_score=False, random_state=None,	0.0110918
1_min_cat	4	Z	verbose=0, warm_start=False)	31
		trade		0.0100685
1_min_cat	8	Z	GaussianNB	74
		trade		0.0092443
1_min_cat	4	Z	voting_soft	98
		trade		0.0078664
1_min_cat	4	Z	GaussianNB	48
_			AdaBoostClassifier(algorithm='SAMME.R',	
			, ,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max depth=4,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
		+rada		0.0074930
4		trade	min_weight_fraction_leaf=0.0,	0.0074839
1_min_cat	4	Z	presort=False, random_state=None,	35

1			splitter='best'),	
			learning rate=1.0, n estimators=100,	
			random state=None)	
		trade	random_state None;	0.0073292
1_min_cat	4	Z	voting_hard	06
	-		LogisticRegression(C=0.1, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi class='ovr', n jobs=1,	
			penalty='l2', random_state=None,	
		trade	solver='liblinear', tol=0.0001,	
1_min_cat	4	Z	verbose=0, warm_start=False)	0.0070329
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
1_min_high_c		trade	verbose=0,	0.1778017
at	15	Z	warm_start=False)	51
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
1_min_high_c		trade	learning_rate=1.0, n_estimators=100,	0.1665563
at	8	Z	random_state=None)	32
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
1_min_high_c		trade	oob_score=False, random_state=None,	0.1320372
at	4	Z	verbose=0, warm_start=False)	48
•	<u>.</u>		1	
	·		AdaBoostClassifier(algorithm='SAMME.R',	
1_min_high_c	·	trade	AdaBoostClassifier(algorithm='SAMME.R', base_estimator=DecisionTreeClassifier(class_weig	0.1262225

		ĺ	max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
			•	
			learning_rate=1.0, n_estimators=50,	
			random_state=None)	
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
1_min_high_c		trade	verbose=0,	0.1260337
at	8	Z	warm_start=False)	45
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
1_min_high_c		trade	verbose=0,	
at	4	Z	warm_start=False)	0.1130527
	•	_	ExtraTreesClassifier(bootstrap=False,	0.1130327
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='auto',	
			max_leaf nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
1 main hinh a		4a.d.a	n_estimators=30, n_jobs=1,	0.1110242
1_min_high_c	15	trade	oob_score=False, random_state=None,	0.1119343
at	15	Z	verbose=0, warm_start=False)	53
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=5,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
1_min_high_c		trade	presort=False, random_state=None,	0.1008525
at	4	Z	splitter='best')	59
			SVC(C=1, cache_size=1024, class_weight=None,	
1_min_high_c		trade	coef0=0.0,	0.0993788
at	8	Z	decision_function_shape=None, degree=3,	07

			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
			random_state=None, shrinking=True,	
			tol=0.001, verbose=False)	
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max leaf nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min weight fraction leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
1_min_high_c		trade	verbose=0,	0.0953709
at	43	Z	warm_start=False)	05
		_	DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=7,	
			max_features=None,	
			max_leafures=None, min_samples_leaf=1,	
			min_samples_split=2,	
4		4	min_weight_fraction_leaf=0.0,	0.0040247
1_min_high_c	45	trade	presort=False, random_state=None,	0.0818347
at	15	Z	splitter='best')	05
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=10,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
1_min_high_c		trade	presort=False, random_state=None,	0.0749140
at	8	Z	splitter='best')	47
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
1_min_high_c		trade	n_neighbors=5, p=2,	0.0682181
at	15	Z	weights='distance')	71
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
1_min_high_c		trade	learning_rate=1.0, n_estimators=50,	0.0638819
at	4	Z	random state=None)	6
ut	4		random_state=None/	U

1_min_high_c		trade		0.0521006
at	15	Z	GaussianNB	5
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
1_min_high_c		trade	oob_score=False, random_state=None,	0.0494979
at	8	Z	verbose=0, warm_start=False)	24
1_min_high_c		trade		0.0439645
at	8	Z	GaussianNB	45
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min weight fraction leaf=0.0,	
			n_estimators=10, n_jobs=1,	
1_min_high_c		trade	oob_score=False, random_state=None,	0.0387569
at	43	Z	verbose=0, warm start=False)	52
	13	_	SVC(C=1, cache_size=1024,	32
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
1_min_high_c		trade	random_state=None, shrinking=True,	0.0362942
at	4	Z	tol=0.001, verbose=False)	64
			SVC(C=1, cache_size=1024,	04
			class_weight='balanced', coef0=0.0,	
			decision function shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
1_min_high_c		trade	random_state=None, shrinking=True,	0.0362942
	4	Z	tol=0.001, verbose=False)	64
at	4		SVC(C=1, cache_size=1024, class_weight={0: 100,	04
			2: 100}, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
1 main bi-b -		+ vo -! -	max_iter=-1, probability=False,	0.0153330
1_min_high_c	4.5	trade	random_state=None, shrinking=True,	0.0153339
at	15	Z	tol=0.001, verbose=False)	71
1_min_high_c	_	trade	CoursianND	0.0150279
at	4	Z	GaussianNB	34
1_min_high_c	1-	trade	LogisticRegression(C=0.1, class_weight=None,	0.0137626
at	15	Z	dual=False, fit_intercept=True,	39

1	I		intercept_scaling=1, max_iter=100,	l I
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
			solver='liblinear', tol=0.0001,	
			verbose=0, warm_start=False)	
			LogisticRegression(C=0.1, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
1_min_high_c		trade	solver='liblinear', tol=0.0001,	0.0064381
at	8	Z	verbose=0, warm_start=False)	31
at	0			31
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
1_min_high_c		trade	solver='liblinear', tol=0.0001,	
at	4	Z	verbose=0, warm_start=False)	0
1_min_high_c		trade		
at	4	Z	voting_hard	0
1_min_high_c		trade		
at	8	Z	voting_hard	0
1_min_high_c		trade		
at	15	Z	voting_hard	0
1_min_high_c		trade		
at	4	Z	voting_soft	0
1_min_high_c		trade		
at	8	Z	voting_soft	0
1_min_high_c		trade		
at	15	Z	voting_soft	0
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
1 min updow		trade	verbose=0,	0.0209062
n	15	Z	warm_start=False)	92
		_	ExtraTreesClassifier(bootstrap=False,	32
			class weight=None, criterion='gini',	
			max_depth=32, max_features='auto',	
			max_leaf_nodes=None,	
1_min_updow		trade	min_samples_leaf=1, min_samples_split=2,	0.0176325
	15	Z	min_weight_fraction_leaf=0.0,	
n	13		mm_weignt_naction_lear=0.0,	67

			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			SVC(C=1, cache_size=1024, class_weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
1_min_updow		trade	random_state=None, shrinking=True,	0.0170625
n	8	Z	tol=0.001, verbose=False)	42
			SVC(C=1, cache_size=1024, class_weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf', max_iter=-1, probability=False,	
1_min_updow		trade	random_state=None, shrinking=True,	0.0167298
n 1_mm_updow	15	Z	tol=0.001, verbose=False)	0.0167298
	13		ExtraTreesClassifier(bootstrap=False,	37
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
1_min_updow		trade	oob_score=False, random_state=None,	0.0162504
n	4	Z	verbose=0, warm_start=False)	59
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
1 min undou		trada	oob_score=False, random_state=None,	0.0161961
1_min_updow	4	trade Z	verbose=0,	0.0161861 46
n	4		warm_start=False) RandomForestClassifier(bootstrap=True,	40
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min samples leaf=1, min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
1_min_updow		trade	verbose=0,	0.0159052
n	43	Z	warm_start=False)	19
1 min updow	15	trade	KNeighborsClassifier(algorithm='auto',	0.0156173

n		Z	leaf_size=30, metric='minkowski',	13
			metric_params=None, n_jobs=1,	
			n_neighbors=100, p=1,	
			weights='distance')	
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
1_min_updow		trade	verbose=0,	0.0154124
n	8	Z	warm_start=False)	42
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
1_min_updow		trade	learning_rate=1.0, n_estimators=200,	0.0152289
n	4	Z	random_state=None)	5
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
1 main		+ 40 -1 -	n_estimators=30, n_jobs=1,	0.0151500
1_min_updow	43	trade	oob_score=False, random_state=None,	0.0151588
n	43	Z	verbose=0, warm_start=False)	96
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
1 min undow		trade	n_estimators=100, n_jobs=1,	0.0140694
1_min_updow	8	Z	oob_score=False, random_state=None, verbose=0, warm_start=False)	0.0149684 53
n 1 min undow	8	trade	verbose-o, warm_start-raise)	0.0135949
1_min_updow n	15	Z	voting_soft	0.0135949 46
1_min_updow	4	trade	KNeighborsClassifier(algorithm='auto',	0.0135363
±_111111_apa6vv	7	trauc	miterbinous classifier (algorithmi – auto)	0.0133303

n		Z	leaf_size=30, metric='minkowski',	7
		_	metric_params=None, n_jobs=1,	-
			n_neighbors=5, p=2,	
			weights='distance')	
			AdaBoostClassifier(algorithm='SAMME.R',	
			has satisfied Decision Trace Classified Aless was	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4, max_features=None,	
			max_leatures=None, max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
1_min_updow		trade	learning_rate=1.0, n_estimators=400,	0.0130085
n	15	Z	random_state=None)	18
1_min_updow		trade	_ '	0.0121641
n n	15	Z	voting_hard	04
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
1_min_updow		trade	learning_rate=1.0, n_estimators=200,	0.0117060
n	8	Z	random_state=None)	93
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
1_min_updow		trade	metric_params=None, n_jobs=1, n_neighbors=100, p=2,	0.0115467
n	8	Z	metric_params=None, n_jobs=1,	69
		Z trade	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform')	69 0.0107359
n	8	Z	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform') voting_hard	69
n 1_min_updow		Z trade	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform') voting_hard DecisionTreeClassifier(class_weight=None,	69 0.0107359
n 1_min_updow		Z trade	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform') voting_hard DecisionTreeClassifier(class_weight=None, criterion='gini', max_depth=20,	69 0.0107359
n 1_min_updow		Z trade	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform') voting_hard DecisionTreeClassifier(class_weight=None, criterion='gini', max_depth=20, max_features=None,	69 0.0107359
n 1_min_updow		Z trade	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform') voting_hard DecisionTreeClassifier(class_weight=None, criterion='gini', max_depth=20, max_features=None, max_leaf_nodes=None, min_samples_leaf=1,	69 0.0107359
n 1_min_updow		Z trade	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform') voting_hard DecisionTreeClassifier(class_weight=None, criterion='gini', max_depth=20, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2,	69 0.0107359
n 1_min_updow n		Z trade Z	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform') voting_hard DecisionTreeClassifier(class_weight=None, criterion='gini', max_depth=20, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	69 0.0107359 18
n 1_min_updow n 1_min_updow	8	z trade z	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform') voting_hard DecisionTreeClassifier(class_weight=None, criterion='gini', max_depth=20, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None,	0.0107359 18 0.0105908
n 1_min_updow n		Z trade Z	metric_params=None, n_jobs=1, n_neighbors=100, p=2, weights='uniform') voting_hard DecisionTreeClassifier(class_weight=None, criterion='gini', max_depth=20, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	69 0.0107359 18

			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=38,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
1_min_updow		trade	presort=False, random_state=None,	0.0096149
n	4	Z	splitter='best')	46
1_min_updow		trade		0.0064637
n	8	Z	GaussianNB	45
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=10,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
1_min_updow		trade	presort=False, random_state=None,	0.0060554
n '	15	Z	splitter='best')	3
1 min updow		trade	ap	0.0055301
n	4	Z	GaussianNB	67
	-	_	LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
1_min_updow		trade	solver='liblinear', tol=0.0001,	0.0052172
n	15	Z	verbose=0, warm_start=False)	0.0032172
	13	_	LogisticRegression(C=0.0001, class_weight=None,	0,
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
1_min_updow		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0051192
	8	Z	warm start=False)	0.0031132
n 1_min_updow	8	trade	warm_start=raise/	0.0044855
	15	Z	GaussianNB	48
n	13			40
			SVC(C=1, cache_size=1024, class_weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
4		Aug -1 -	max_iter=-1, probability=False,	0.0037330
1_min_updow		trade	random_state=None, shrinking=True,	0.0027329
n	4	Z	tol=0.001, verbose=False)	89
			LogisticRegression(C=0.001, class_weight=None,	
1_min_updow		trade	dual=False, fit_intercept=True,	0.0026916
n	4	Z	intercept_scaling=1, max_iter=100,	87

penalty='l2', random_state=None, solver='liblinear', tol=0.0001, verbose=0, warm_start=False)	
verbose=0, warm_start=False)	
1_min_updow trade	0.0025553
n 4 Z voting_hard	31
	-
1_min_updow trade	0.0006631
n 4 Z voting_soft	14
SVC(C=1, cache_size=1024, class_weight=None,	
coef0=0.0,	
decision_function_shape=None, degree=3,	
gamma='auto', kernel='rbf',	
max_iter=-1, probability=False,	
trade random_state=None, shrinking=True,	0.0341905
10_min_cat 4 Z tol=0.001, verbose=False)	48
DecisionTreeClassifier(class_weight=None,	
criterion='entropy', max_depth=10,	
max_features=None,	
max_leaf_nodes=None, min_samples_leaf=1,	
min_samples_split=2,	
min_weight_fraction_leaf=0.0,	
trade presort=False, random_state=None,	0.0268896
10_min_cat 15 Z splitter='best')	17
DecisionTreeClassifier(class_weight=None,	
criterion='gini', max_depth=3,	
max_features=None,	
max_leaf_nodes=None, min_samples_leaf=1,	
min_samples_split=2,	
min_weight_fraction_leaf=0.0,	
trade presort=False, random_state=None,	0.0264592
10_min_cat 4 Z splitter='best')	32
RandomForestClassifier(bootstrap=True,	
class_weight=None, criterion='gini',	
max_depth=64, max_features='sqrt',	
max_leaf_nodes=None,	
min_samples_leaf=1, min_samples_split=2,	
min_weight_fraction_leaf=0.0,	
n_estimators=100, n_jobs=1,	
oob_score=False, random_state=None,	
trade verbose=0,	0.0224542
10_min_cat 43 Z warm_start=False)	93
trade	0.0214731
10_min_cat 4 Z voting_soft	29
SVC(C=0.01, cache_size=1024,	
trade class_weight='balanced', coef0=0.0,	0.0202910
10_min_cat 15 Z decision_function_shape=None, degree=3,	71

			gamma='auto', kernel='rbf',	
			max iter=-1, probability=False,	
			random state=None, shrinking=True,	
			tol=0.001, verbose=False)	
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
		trade	solver='liblinear', tol=0.0001,	0.0200202
10_min_cat	4	Z	verbose=0, warm_start=False)	03
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n estimators=30, n jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0187203
10_min_cat	4	Z	warm start=False)	06
10_11111_cat	7	_	AdaBoostClassifier(algorithm='SAMME.R',	- 00
			Adaboostclassifier (algorithm - SAlvilvie.it,	
			hase estimator-DesisionTreeClassifier/slass weig	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
		trade	learning_rate=1.0, n_estimators=200,	0.0186235
10_min_cat	4	Z	random_state=None)	19
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0180349
10_min_cat	43	Z	verbose=0, warm_start=False)	13
TO_IIIII_Cat	43		KNeighborsClassifier(algorithm='auto',	13
			leaf_size=30, metric='minkowski',	
		L	metric_params=None, n_jobs=1,	0.0477456
10	-	trade	n_neighbors=300, p=1,	0.0177456
10_min_cat	4	Z	weights='uniform')	44

	I		ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		l	n_estimators=100, n_jobs=1,	0.0475557
		trade	oob_score=False, random_state=None,	0.0175557
10_min_cat	4	Z	verbose=0, warm_start=False)	61
		trade		0.0165117
10_min_cat	4	Z	voting_hard	87
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0159171
10_min_cat	8	Z	verbose=0, warm_start=False)	54
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
		trade	learning rate=1.0, n estimators=100,	0.0131701
10_min_cat	15	Z	random_state=None)	29
10_IIIII_cat	15	_	LogisticRegression(C=0.001, class_weight=None,	23
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
		trade	penalty='l2', random_state=None,	0.0127544
10	15		solver='liblinear', tol=0.0001,	0.0127541
10_min_cat	15	Z	verbose=0, warm_start=False)	98
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0125081
10_min_cat	15	Z	verbose=0, warm_start=False)	38

		trade		0.0122699
10_min_cat	15	Z	GaussianNB	21
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=4, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0119723
10_min_cat	8	Z	warm_start=False)	07
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
		trade	n_neighbors=5, p=1,	0.0111769
10_min_cat	8	Z	weights='uniform')	64
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=5,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random_state=None,	0.0105548
10_min_cat	8	Z	splitter='best')	73
			SVC(C=0.0001, cache_size=1024, class_weight={0:	
			100, 2: 100}, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0092715
10_min_cat	8	Z	tol=0.001, verbose=False)	4
			AdaBoostClassifier(algorithm='SAMME.R',	
			base estimator=DecisionTreeClassifier(class weig	
			ht=None, criterion='gini', max_depth=1,	
			max features=None,	
			max leaf nodes=None, min samples leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
		trade	learning_rate=1.0, n_estimators=50,	0.0091953
10_min_cat	8	Z	random_state=None)	7
1_0000			RandomForestClassifier(bootstrap=True,	-
		trade	class_weight=None, criterion='gini',	0.0089422
10_min_cat	15	Z	max_depth=64, max_features='sqrt',	8
	L	l	/ /	

1		÷	max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0,	
			warm_start=False)	
		trade		0.0057957
10_min_cat	8	Z	voting_soft	31
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
	4.5	trade	n_neighbors=300, p=1,	0.0056878
10_min_cat	15	Z	weights='distance')	04
10 min oot	15	trade	vating band	0.0055315
10_min_cat	15	Z trade	voting_hard	0.0040098
10_min_cat	8	Z	voting hard	0.0040098
10_IIIII_cat	8		LogisticRegression(C=0.0001, class_weight=None,	12
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0030071
10_min_cat	8	Z	warm_start=False)	59
		trade		0.0009629
10_min_cat	15	Z	voting_soft	21
		trade		
10_min_cat	4	Z	GaussianNB	-9.35E-05
				-
		trade	C ' ND	0.0007592
10_min_cat	8	Z	GaussianNB	18
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
10_min_high_		trade	learning_rate=1.0, n_estimators=100,	0.1758083
cat	1	Z	random_state=None)	23
cat	4		randon_state rione,	
10_min_high_	4	trade	ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini',	0.1422992

max_depth=32, max_features='auto', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, warm_start=False) AdaBoostClassifier(algorithm='SAMME.R', base_estimator=DecisionTreeClassifier(class_weight=None, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), lo_min_high_cate cat 15 Z random_state=None) 54 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, lo_min_high_cate verbose=0, RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt', max_depth=32, max_features='sqrt', max_depth=32, max_features='sqrt',
min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, warm_start=False) AdaBoostClassifier(algorithm='SAMME.R', base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=4, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), learning_rate=1.0, n_estimators=50, cat 15 Z random_state=None) 54 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, cat 43 Z warm_start=False) 44 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt', max_depth=32, max_features='sqrt',
min_weight_fraction_leaf=0.0,
n_estimators=10, n_jobs=1,
oob_score=False, random_state=None, verbose=0, warm_start=False) AdaBoostClassifier(algorithm='SAMME.R', base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=4, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), lo_min_high_ trade learning_rate=1.0, n_estimators=50, 0.1203224 cat 15 Z random_state=None, criterion='gini', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, cat 43 Z warm_start=False) 0.1202042
verbose=0, warm_start=False) AdaBoostClassifier(algorithm='SAMME.R', base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=4, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), 10_min_high_ trade learning_rate=1.0, n_estimators=50, 0.1203224 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, versions=10, n_jobs=1, and versions=10,
AdaBoostClassifier(algorithm='SAMME.R', base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=4, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), 10_min_high_ cat 15 Z random_state=None, splitter='best') RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbes=0, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbes=0, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt', max_dept
base_estimator=DecisionTreeClassifier(class_weight=None, criterion='gini', max_depth=4, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), learning_rate=1.0, n_estimators=50, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, trade verbose=0, cat 43 Z warm_start=False) 44 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt', max_depth=32, max_features='sqrt', max_depth=32, max_features='sqrt', max_depth=32, max_features='sqrt', max_depth=32, max_features='sqrt',
ht=None, criterion='gini', max_depth=4,
ht=None, criterion='gini', max_depth=4,
max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), learning_rate=1.0, n_estimators=50, random_state=None) RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, verbose=0, RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
max_leaf_nodes=None, min_samples_leaf=1,
min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), 10_min_high_ cat 15 Z RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, 10_min_high_ cat 43 Z Warm_start=False) RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt', 8
min_weight_fraction_leaf=0.0,
presort=False, random_state=None, splitter='best'), 10_min_high_ trade learning_rate=1.0, n_estimators=50, 0.1203224 cat 15 Z random_state=None) 54 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, cat 43 Z warm_start=False) 0.1202042 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
splitter='best'), learning_rate=1.0, n_estimators=50, cat 15 Z Random_state=None) RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini',
10_min_high_ cattrade ISlearning_rate=1.0, n_estimators=50, random_state=None)0.1203224RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None,0.120204210_min_high_ cattrade yerbose=0, warm_start=False)0.1202042RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
cat15Zrandom_state=None)54RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, cat0.120204243Zwarm_start=False)44RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, 0.1202042 cat 43 Z warm_start=False) 44 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
class_weight=None, criterion='gini',
max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, cat 43 Z RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, verbose=0, varm_start=False) RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, verbose=0, verbose=0, varm_start=False) RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1, oob_score=False, random_state=None, 10_min_high_ cat
n_estimators=10, n_jobs=1, oob_score=False, random_state=None, 10_min_high_ cat 43 Z warm_start=False) 0.1202042 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
10_min_high_ cattrade 43oob_score=False, random_state=None, verbose=0, warm_start=False)0.1202042RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
10_min_high_ cattrade 43verbose=0, warm_start=False)0.1202042Additional control contr
cat 43 Z warm_start=False) 44 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=32, max_features='sqrt', 14
class_weight=None, criterion='gini', max_depth=32, max_features='sqrt',
max_depth=32, max_features='sqrt',
max_depth=32, max_features='sqrt',
max_leaf_nodes=None,
min_samples_leaf=1, min_samples_split=2,
min_weight_fraction_leaf=0.0,
n_estimators=100, n_jobs=1,
oob_score=False, random_state=None,
10_min_high_ trade verbose=0, 0.1168425
cat 8 Z warm_start=False) 42
DecisionTreeClassifier(class_weight=None,
criterion='entropy', max_depth=7,
max_features=None,
max_leaf_nodes=None, min_samples_leaf=1,
min_samples_split=2,
min_weight_fraction_leaf=0.0,
10_min_high_ trade presort=False, random_state=None, 0.1020433
cat 4 Z splitter='best') 28

1	1	I	RandomForestClassifier(bootstrap=True,	l I
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min samples leaf=1, min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
10			oob_score=False, random_state=None,	0.0047505
10_min_high_		trade	verbose=0,	0.0947535
cat	15	Z	warm_start=False)	94
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
10_min_high_		trade	oob_score=False, random_state=None,	0.0863388
cat	43	Z	verbose=0, warm_start=False)	45
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
10_min_high_		trade	n_neighbors=5, p=1,	0.0805348
cat	15	Z	weights='uniform')	22
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
10_min_high_		trade	verbose=0,	0.0760420
cat	4	Z	warm start=False)	64
	•	_	DecisionTreeClassifier(class_weight=None,	0.
			criterion='entropy', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
10 min high		trade	presort=False, random state=None,	0.0738984
10_min_high_	0			_
cat	8	Z	splitter='best')	04
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='auto',	
		l	max_leaf_nodes=None,	0.074.55.5
10_min_high_	_	trade	min_samples_leaf=1, min_samples_split=2,	0.0714349
cat	8	Z	min_weight_fraction_leaf=0.0,	13

1			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
10_min_high_		trade		0.0648059
cat	8	Z	GaussianNB	06
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric params=None, n jobs=1,	
10_min_high_		trade	n neighbors=5, p=1,	0.0644186
cat	8	Z	weights='distance')	03
	_		ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
10_min_high_		trade	oob_score=False, random_state=None,	0.0556099
cat	4	Z	verbose=0, warm start=False)	94
			KNeighborsClassifier(algorithm='auto',	_
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
10_min_high_		trade	n_neighbors=5, p=2,	0.0471754
cat	4	Z	weights='uniform')	89
			AdaBoostClassifier(algorithm='SAMME.R',	
			,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
10_min_high_		trade	learning_rate=1.0, n_estimators=50,	0.0461928
cat	8	Z	random_state=None)	4
			SVC(C=0.01, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
10_min_high_		trade	random_state=None, shrinking=True,	0.0409264
cat	15	Z	tol=0.001, verbose=False)	34
10_min_high_		trade	-	
cat	4	Z	GaussianNB	0.0359713
10_min_high_		trade	DecisionTreeClassifier(class_weight=None,	0.0340473
cat	15	Z	criterion='entropy', max_depth=7,	88
	1 13		ss. charopy , max_depth /,	55

			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best')	
10_min_high_		trade		0.0274613
cat	15	Z	GaussianNB	35
			SVC(C=0.01, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
10_min_high_		trade	random_state=None, shrinking=True,	0.0271132
cat	8	Z	tol=0.001, verbose=False)	82
			SVC(C=0.01, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
10_min_high_		trade	random_state=None, shrinking=True,	0.0209621
cat	4	Z	tol=0.001, verbose=False)	18
			LogisticRegression(C=1, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
10_min_high_		trade	solver='liblinear', tol=0.0001,	0.0107862
cat	15	Z	verbose=0, warm_start=False)	71
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
10_min_high_		trade	solver='liblinear', tol=0.0001,	
cat	4	Z	verbose=0, warm_start=False)	0
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
		_	penalty='l2', random_state=None,	
10_min_high_	_	trade	solver='liblinear', tol=0.0001,	
cat	8	Z	verbose=0, warm_start=False)	0
10_min_high_		trade		
cat	4	Z	voting_hard	0
10_min_high_		trade		
cat	8	Z	voting_hard	0

10_min_high_		trade		
cat	15	Z	voting_hard	0
10_min_high_		trade		
cat	4	Z	voting_soft	0
10_min_high_		trade		
cat	8	Z	voting_soft	0
10_min_high_		trade		
cat	15	Z	voting_soft	0
			SVC(C=1, cache_size=1024, class_weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
10 min unda		trada	max_iter=-1, probability=False,	0.0249007
10_min_updo	4	trade Z	random_state=None, shrinking=True, tol=0.001, verbose=False)	0.0248097
wn	4		DecisionTreeClassifier(class_weight=None,	32
			criterion='gini', max_depth=14,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min weight fraction leaf=0.0,	
10_min_updo		trade	presort=False, random_state=None,	0.0162419
wn	4	Z	splitter='best')	26
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
10		A1 -	oob_score=False, random_state=None,	0.0455574
10_min_updo	42	trade	verbose=0,	0.0155574
wn	43	Z	warm_start=False) ExtraTreesClassifier(bootstrap=False,	1
			class_weight=None, criterion='gini',	
			max depth=8, max features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
10_min_updo		trade	oob_score=False, random_state=None,	0.0153092
wn	4	Z	verbose=0, warm_start=False)	04
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=5,	
			max_features=None,	
10_min_updo	_	trade	max_leaf_nodes=None, min_samples_leaf=1,	0.0142633
wn	8	Z	min_samples_split=2,	15

			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best')	
10_min_updo		trade		0.0138718
wn	15	Z	GaussianNB	26
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
10 min updo		trade	n_neighbors=300, p=1,	0.0138604
wn	4	Z	weights='uniform')	22
•	7	_	RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=2, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			_	
10 min unda		+ = = = =	oob_score=False, random_state=None,	0.0137005
10_min_updo	8	trade	verbose=0,	0.0137095
wn	8	Z	warm_start=False)	46
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
10		A al a	metric_params=None, n_jobs=1,	0.0422246
10_min_updo	4.5	trade	n_neighbors=25, p=1,	0.0132316
wn	15	Z	weights='uniform')	07
			AdaBoostClassifier(algorithm='SAMME.R',	
			has actimates—DecisionTracClassifics/class wais	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
40		l	splitter='best'),	0.0430453
10_min_updo		trade	learning_rate=1.0, n_estimators=200,	0.0130453
wn	4	Z	random_state=None)	2
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
10_min_updo		trade	oob_score=False, random_state=None,	0.0127163
wn	43	Z	verbose=0, warm_start=False)	95
10_min_updo	4	trade	RandomForestClassifier(bootstrap=True,	0.0120616

I	1	l -	alana aasiaha Niana adaasian lateti	00
wn		Z	class_weight=None, criterion='gini',	88
			max_depth=8, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0,	
			warm_start=False)	
10_min_updo		trade		0.0114054
wn	8	Z	GaussianNB	68
10_min_updo		trade		0.0113574
wn	4	Z	voting_hard	17
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max depth=4, max features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
10_min_updo		trade	oob_score=False, random_state=None,	0.0112060
wn	15	Z	verbose=0, warm_start=False)	99
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
10_min_updo		trade	learning_rate=1.0, n_estimators=50,	0.0110551
wn	15	Z	random_state=None)	99
10_min_updo	13	trade	random_state None;	0.0109555
wn	15	Z	voting_hard	6
	13	_	RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
10_min_updo		trade	verbose=0,	0.0106679
wn	15	Z	warm_start=False)	33
10_min_updo	4	trade	voting_soft	0.0104358

wn		Z		07
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
10 min updo		trade	oob_score=False, random_state=None,	0.0096548
wn	8	Z	verbose=0, warm_start=False)	68
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
10 min updo		trade	solver='liblinear', tol=0.0001,	0.0074097
	8	Z		
wn	8		verbose=0, warm_start=False)	25
10_min_updo		trade	C · ND	0.0070556
wn	4	Z	GaussianNB	76
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
10_min_updo		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0064281
wn	4	Z	warm_start=False)	17
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi class='ovr', n jobs=1, penalty='l2',	
			random_state=None,	
10_min_updo		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0059622
wn	15	Z	warm start=False)	34
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric params=None, n jobs=1,	
10_min_updo		trade	n neighbors=5, p=1,	0.0058407
wn	8	Z	weights='uniform')	6
	0	trade	weights= uniform)	0.0058387
10_min_updo	8		voting soft	
wn	8	Z	voting_soft	26
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
10_min_updo		trade	ht=None, criterion='gini', max_depth=1,	0.0058224
	8	Z	max_features=None,	69

			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random state=None,	
			splitter='best'),	
			learning_rate=1.0, n_estimators=50,	
			random_state=None)	
10_min_updo		trade	<u> </u>	0.0054013
wn	15	Z	voting_soft	43
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=10,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
10_min_updo		trade	presort=False, random_state=None,	0.0028194
wn	15	Z	splitter='best')	59
10_min_updo		trade		0.0025963
wn	8	Z	voting_hard	94
			SVC(C=0.01, cache_size=1024,	
			class_weight=None, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	-
10_min_updo		trade	random_state=None, shrinking=True,	0.0034461
wn	8	Z	tol=0.001, verbose=False)	03
			SVC(C=0.01, cache_size=1024,	
			class_weight=None, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	-
10_min_updo		trade	random_state=None, shrinking=True,	0.0054642
wn	15	Z	tol=0.001, verbose=False)	88
			SVC(C=1, cache_size=1024, class_weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0334358
20_min_cat	4	Z	tol=0.001, verbose=False)	37
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
		trade	min_weight_fraction_leaf=0.0,	0.0241592
20_min_cat	43	Z	n_estimators=10, n_jobs=1,	17

l I		Ī	ach score-False random state-None	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=2, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0220441
20_min_cat	8	Z	verbose=0, warm_start=False)	05
			Random Forest Classifier (bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0215650
20_min_cat	4	Z	warm_start=False)	54
		trade		0.0213363
20_min_cat	4	Z	voting_soft	07
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0196719
20_min_cat	43	Z	warm_start=False)	09
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0192260
20_min_cat	15	Z	warm_start=False)	93
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
		trade	max_depth=1, max_features='auto',	0.0179249
		i	max leaf nodes=None,	
20_min_cat	15	Z	oob_score=False, random_state=None, verbose=0, warm_start=False) ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=1, max_features='auto',	93

]			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=14,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random_state=None,	0.0178939
20_min_cat	4	Z	splitter='best')	35
		trade		0.0177311
20_min_cat	4	Z	voting_hard	03
			SVC(C=0.01, cache_size=1024,	
			class_weight=None, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0173251
20 min cat	15	Z	tol=0.001, verbose=False)	24
			AdaBoostClassifier(algorithm='SAMME.R',	
			, 5	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
		trade	learning_rate=1.0, n_estimators=400,	0.0158261
20 min cat	4	Z	_	68
20_min_cat	4		random_state=None)	08
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0145673
20_min_cat	4	Z	verbose=0, warm_start=False)	63
			AdaBoostClassifier(algorithm='SAMME.R',	
20_min_cat	15	trade	base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=2,	0.0141852

I	I	1	max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
			learning_rate=1.0, n_estimators=50,	
			random_state=None)	
			RandomForestClassifier(bootstrap=True,	
			class weight=None, criterion='gini',	
			max_depth=1, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
		trade	oob_score=False, random_state=None, verbose=0,	0.0125205
20 min cat	8		-	0.0125395
20_IIIIII_Cat	٥	Z	warm_start=False)	16
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
		4a.al.a	metric_params=None, n_jobs=1,	0.0114701
20		trade	n_neighbors=25, p=2,	0.0114791
20_min_cat	4	Z	weights='uniform')	34
			AdaBoostClassifier(algorithm='SAMME.R',	
			han ation to Decision Too Classificateless weigh	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
		١	splitter='best'),	0.0400000
		trade	learning_rate=1.0, n_estimators=200,	0.0108309
20_min_cat	8	Z	random_state=None)	31
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
		trade	solver='liblinear', tol=0.0001,	0.0098454
20_min_cat	4	Z	verbose=0, warm_start=False)	98
			SVC(C=0.0001, cache_size=1024,	
			class_weight=None, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
		trade	max_iter=-1, probability=False,	0.0095794
20_min_cat	8	Z	random_state=None, shrinking=True,	72

			tol=0.001, verbose=False)	
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random_state=None,	0.0071721
20_min_cat	8	Z	splitter='best')	71
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random_state=None,	0.0071721
20_min_cat	15	Z	splitter='best')	71
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
		trade	n_neighbors=5, p=2,	0.0029718
20_min_cat	15	Z	weights='uniform')	79
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
		trade	n_neighbors=5, p=1,	0.0026368
20_min_cat	8	Z	weights='uniform')	32
				-
		trade		0.0033332
20_min_cat	4	Z	GaussianNB	13
			LogisticRegression(C=0.01, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='I2', random_state=None,	-
		trade	solver='liblinear', tol=0.0001,	0.0037531
20_min_cat	15	Z	verbose=0, warm_start=False)	57
				-
		trade		0.0043728
20_min_cat	8	Z	voting_hard	96
_				-
		trade		0.0055797
20_min_cat	15	Z	voting_soft	15
				-
		trade		0.0061868
20_min_cat	8	Z	voting_soft	41
20_min_cat	15	trade	voting_hard	

		Z		0.0062052
				83
			LogisticRegression(C=0.01, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	-
		trade	solver='liblinear', tol=0.0001,	0.0065151
20_min_cat	8	Z	verbose=0, warm_start=False)	18
				-
	4-	trade		0.0129953
20_min_cat	15	Z	GaussianNB	06
		A		- 0.0120704
20 min cat	8	trade	CaussianND	0.0139794
20_min_cat	0	Z	GaussianNB DecisionTreeClassifier(class weight=None,	16
			criterion='entropy', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
20_min_high_		trade	presort=False, random_state=None,	0.2908616
cat	15	Z	splitter='best')	79
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
20_min_high_		trade	presort=False, random_state=None,	0.1624283
cat	8	Z	splitter='best')	21
			AdaBoostClassifier(algorithm='SAMME.R',	
			hase estimator-DesisionTreeClassificat(class weig	
			base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random state=None,	
			splitter='best'),	
20_min_high_		trade	learning_rate=1.0, n_estimators=200,	0.1303026
cat	4	Z	random_state=None)	53
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
20_min_high_		trade	max_depth=64, max_features='sqrt',	0.1092327
cat	4	Z	max_leaf_nodes=None,	82

I	İ		I	main communication of the main communication and it 2	ı .
				min_samples_leaf=1, min_samples_split=2,	
				min_weight_fraction_leaf=0.0,	
				n_estimators=10, n_jobs=1,	
				oob_score=False, random_state=None,	
				verbose=0,	
				warm_start=False)	
				RandomForestClassifier(bootstrap=True,	
				class_weight=None, criterion='gini',	
				max_depth=32, max_features='sqrt',	
				max leaf nodes=None,	
				min_samples_leaf=1, min_samples_split=2,	
				min_weight_fraction_leaf=0.0,	
				n_estimators=100, n_jobs=1,	
				oob_score=False, random_state=None,	
20_min	high		trade	verbose=0,	0.1019624
cat	_'''6''_	8	Z	warm_start=False)	59
Cat		0		_	39
				RandomForestClassifier(bootstrap=True, class weight=None, criterion='gini',	
				max_depth=32, max_features='sqrt',	
				max_leaf_nodes=None,	
				min_samples_leaf=1, min_samples_split=2,	
				min_weight_fraction_leaf=0.0,	
				n_estimators=30, n_jobs=1,	
				oob_score=False, random_state=None,	
20_min	_high_		trade	verbose=0,	0.1007705
cat		15	Z	warm_start=False)	15
				DecisionTreeClassifier(class_weight=None,	
				criterion='gini', max_depth=5,	
				max_features=None,	
				max_leaf_nodes=None, min_samples_leaf=1,	
				min_samples_split=2,	
				min_weight_fraction_leaf=0.0,	
20_min	high		trade	presort=False, random_state=None,	0.0966208
cat	6	4	7	splitter='best')	43
		•	_	AdaBoostClassifier(algorithm='SAMME.R',	.5
				Addboosteldssiffer (digorithm) - SAMMIVIE.IX,	
				base_estimator=DecisionTreeClassifier(class_weig	
				ht=None, criterion='gini', max_depth=2,	
				max_features=None,	
				max_leaf_nodes=None, min_samples_leaf=1,	
				min_samples_split=2,	
				min_weight_fraction_leaf=0.0,	
				presort=False, random_state=None,	
				1 11 11	
				splitter='best'),	
20_min	_high_		trade	learning_rate=1.0, n_estimators=400,	0.0912445
20_min cat	_high_	15	trade Z	learning_rate=1.0, n_estimators=400, random_state=None)	62
		15		learning_rate=1.0, n_estimators=400,	

I	I	I	fit_intercept=True, intercept_scaling=1,	I
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
			solver='liblinear', tol=0.0001, verbose=0,	
			warm_start=False)	
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
20_min_high_		trade	verbose=0,	0.0665556
cat	43	Z	warm_start=False)	08
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4,	
			max_features=None,	
			max leaf nodes=None, min samples leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
20_min_high_		trade	learning_rate=1.0, n_estimators=400,	0.0657839
cat	8	Z	random_state=None)	95
		_	ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min weight fraction leaf=0.0,	
			n_estimators=10, n_jobs=1,	
20_min_high_		trade	oob score=False, random state=None,	0.0639468
	43	Z		
cat	43		verbose=0, warm_start=False)	89
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
		l	random_state=None,	0.055.00=
20_min_high_	_	trade	solver='liblinear', tol=0.0001, verbose=0,	0.0556065
cat	15	Z	warm_start=False)	69
			ExtraTreesClassifier(bootstrap=False,	
20_min_high_		trade	class_weight=None, criterion='gini',	0.0502163
cat	15	Z	max_depth=64, max_features='auto',	38

			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max depth=32, max features='auto',	
			max leaf nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
20_min_high_		trade	oob_score=False, random_state=None,	0.0495425
cat	8	Z	verbose=0, warm_start=False)	53
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
20_min_high_		trade	n_neighbors=5, p=1,	0.0486521
cat	4	Z	weights='uniform')	71
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
20_min_high_		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0466989
cat	8	Z	warm_start=False)	68
			ExtraTreesClassifier(bootstrap=False,	
			class weight=None, criterion='gini',	
			max_depth=32, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
20_min_high_		trade	oob_score=False, random_state=None,	0.0463799
cat	4	Z	verbose=0, warm_start=False)	01
			SVC(C=0.01, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
20_min_high_		trade	random_state=None, shrinking=True,	0.0364383
cat	15	Z	tol=0.001, verbose=False)	44
			SVC(C=0.01, cache_size=1024,	
20_min_high_		trade	class_weight='balanced', coef0=0.0,	0.0341191
cat	4	Z	decision_function_shape=None, degree=3,	66
1			, , , ,	

I	I		gamma='auto', kernel='rbf',	l I
			max iter=-1, probability=False,	
			random_state=None, shrinking=True,	
			tol=0.001, verbose=False)	
			SVC(C=0.0001, cache_size=1024, class_weight={0:	
			100, 2: 100}, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
20_min_high_		trade	random_state=None, shrinking=True,	0.0095794
cat	8	Z	tol=0.001, verbose=False)	72
		_	KNeighborsClassifier(algorithm='auto',	,_
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
20_min_high_		trade	n_neighbors=5, p=2,	0.0020221
cat	8	Z	weights='distance')	42
Cut	8		KNeighborsClassifier(algorithm='auto',	72
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
20 min high		trade	n neighbors=25, p=1,	
cat	15	Z	weights='uniform')	0
20 min high	15	trade	weights- uniform)	0
cat	4	Z	voting_hard	0
20_min_high_	4	trade	voting_nard	U
cat	8	Z	voting_hard	0
20_min_high_	0	trade	voting_nard	0
cat	15	Z	voting_hard	0
20_min_high_	15	trade	voting_nard	0
cat	4	Z	voting_soft	0
20 min high	7	trade	voting_sort	0
cat	8	Z	voting_soft	0
20_min_high_	8	trade	voting_sort	0
cat	15	Z	voting_soft	0
cat	13		voting_sort	-
20_min_high_		trade		0.0026361
cat	8	Z	GaussianNB	19
Cat	8		Gaassallivo	19
20_min_high_		trade		0.0161335
cat	15	Z	GaussianNB	0.0101333
Cat	13		Guassialitab	
20_min_high_		trade		0.0230156
cat	4	Z	GaussianNB	0.0230130
Cat	4		SVC(C=1, cache_size=1024, class_weight=None,	OI
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
20_min_updo		trade	gamma='auto', kernel='rbf',	0.0208947
	4	Z	max_iter=-1, probability=False,	1
wn	4		max_itei=-1, probability=raise,	1

I			random_state=None, shrinking=True,	
			tol=0.001, verbose=False)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
20_min_updo		trade	oob_score=False, random_state=None,	0.0148153
wn	4	Z	verbose=0, warm_start=False)	15
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
20_min_updo	_	trade	presort=False, random_state=None,	0.0137604
wn	4	Z	splitter='best')	09
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=2, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
20_min_updo		trade	oob_score=False, random_state=None,	0.0134683
wn	15	Z	verbose=0, warm_start=False)	89
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=10,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
20_min_updo		trade	presort=False, random_state=None,	0.0127166
wn	15	Z	splitter='best')	51
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
20_min_updo		trade	verbose=0,	0.0116875
wn	43	Z	warm_start=False)	08
20_min_updo	43	trade	ExtraTreesClassifier(bootstrap=False,	0.0111113

wn	I	Z	class_weight=None, criterion='gini',	26
VVII		_	max_depth=4, max_features='auto',	20
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm start=False)	
			SVC(C=0.01, cache size=1024,	
			class_weight=None, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
20_min_updo		trade	random_state=None, shrinking=True,	0.0104584
	15		_	
wn	13	Z	tol=0.001, verbose=False) SVC(C=0.0001, cache_size=1024,	01
			class weight=None, coef0=0.0,	
			decision_function_shape=None, degree=3, gamma='auto', kernel='rbf',	
20 min undo		trade	max_iter=-1, probability=False,	0.0095794
20_min_updo	8	Z	random_state=None, shrinking=True, tol=0.001, verbose=False)	72
wn	8	Z		/2
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
20_min_updo		trade	oob score=False, random state=None,	0.0085441
	8	Z	verbose=0, warm_start=False)	0.0085441
wn	0		_ :	11
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
20 mind-		+rada	oob_score=False, random_state=None,	0.0075303
20_min_updo	A	trade	verbose=0,	0.0075393
wn	4	Z	warm_start=False)	59
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
20		Aug -1 -	metric_params=None, n_jobs=1,	
20_min_updo		trade	n_neighbors=100, p=2,	0.0065074
wn	4	Z	weights='uniform')	0.0065874
20_min_updo	4	trade	AdaBoostClassifier(algorithm='SAMME.R',	0.0050838

wn	I	Z		69
VVII		_	base_estimator=DecisionTreeClassifier(class_weig	03
			ht=None, criterion='gini', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
			learning_rate=1.0, n_estimators=200,	
			random_state=None)	
20_min_updo		trade		0.0047652
wn	15	Z	GaussianNB	86
20_min_updo		trade		0.0046262
wn	4	Z	voting_soft	81
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
20_min_updo		trade	verbose=0,	0.0030723
wn	15	Z	warm_start=False)	74
20_min_updo	13	trade	warm_start=raisc/	0.0026395
wn	8	Z	GaussianNB	92
VVII	8		AdaBoostClassifier(algorithm='SAMME.R',	92
			Audboostclassifier (algorithm - SAlvilvie. N.,	
			hann nationatan Basinian-Translassifian/alana wain	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
20_min_updo		trade	learning_rate=1.0, n_estimators=200,	0.0025029
wn	15	Z	random_state=None)	63
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
20_min_updo		trade	n_neighbors=100, p=2,	
wn	15	Z	weights='distance')	1.67E-05
			KNeighborsClassifier(algorithm='auto',	-
20_min_updo		trade	leaf_size=30, metric='minkowski',	0.0001173
wn	8	Z	metric_params=None, n_jobs=1,	4
				•

			n_neighbors=5, p=2,	
			weights='uniform')	
				-
20_min_updo	4	trade	CoussianNR	0.0009107
wn	4	Z	GaussianNB RandomForestClassifier(bootstrap=True,	24
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	-
20_min_updo		trade	verbose=0,	0.0020079
wn	8	Z	warm_start=False)	9
			LogisticRegression(C=0.1, class_weight=None,	
			<pre>dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100,</pre>	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random state=None,	_
20_min_updo		trade	solver='liblinear', tol=0.0001,	0.0028438
wn	8	Z	verbose=0, warm_start=False)	8
				-
20_min_updo		trade		0.0032916
wn	4	Z	voting_hard	77
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	_
20_min_updo		trade	presort=False, random_state=None,	0.0040528
wn	8	Z	splitter='best')	49
				-
20_min_updo		trade		0.0049469
wn	15	Z	voting_hard	54
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2', random_state=None,	
20 min updo		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0056654
wn	15	Z	warm_start=False)	01
				-
20_min_updo		trade		0.0063873
wn	8	Z	voting_hard	18

base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=4,	
min_weight_fraction_leaf=0.0,	
presort=False, random_state=None, splitter='best'),	-
20_min_updo trade learning_rate=1.0, n_estimators=400,	0.0065281
wn 8 Z random_state=None)	23
20_min_updo trade	0.0069643
wn 15 Z voting_soft	24
20_min_updo trade	0.0095344
wn 8 Z voting_soft	07
LogisticRegression(C=0.0001, class_weight=None, dual=False,	
fit intercept=True, intercept scaling=1,	
max_iter=100,	
multi_class='ovr', n_jobs=1, penalty='l2',	
random_state=None, 20_min_updo trade solver='liblinear', tol=0.0001, verbose=0,	0.0104625
wn 4 Z warm_start=False)	46
SVC(C=0.01, cache_size=1024,	
class_weight='balanced', coef0=0.0, decision_function_shape=None, degree=3,	
gamma='auto', kernel='rbf',	
max_iter=-1, probability=False,	
trade random_state=None, shrinking=True, 40_min_cat 4 Z tol=0.001, verbose=False)	0.0389691 83
DecisionTreeClassifier(class_weight=None,	03
criterion='gini', max_depth=5,	
max_features=None,	
max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2,	
min_weight_fraction_leaf=0.0,	
trade presort=False, random_state=None,	0.0380603
40_min_cat 15 Z splitter='best') RandomForestClassifier(bootstrap=True,	08
class_weight=None, criterion='gini',	
max_depth=2, max_features='sqrt',	
max_leaf_nodes=None, trade min_samples_leaf=1, min_samples_split=2,	0.0361939
40_min_cat 4 Z min_weight_fraction_leaf=0.0,	0.0301333

1			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0,	
			warm_start=False)	
		trade		0.0306221
40_min_cat	4	Z	GaussianNB	17
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
		trade	min_weight_fraction_leaf=0.0, presort=False, random_state=None,	0.0301185
40_min_cat	8	Z	splitter='best')	0.0301163
40_11111_cat	8		DecisionTreeClassifier(class_weight=None,	08
			criterion='gini', max depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random_state=None,	0.0276656
40_min_cat	4	Z	splitter='best')	21
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
		trade	oob_score=False, random_state=None, verbose=0,	0.0270718
40 min cat	43	Z	warm_start=False)	0.0270718
40_11111_cat	73		AdaBoostClassifier(algorithm='SAMME.R',	
			/ daggestelassinel (algerianii - 5/11/11/12/11/)	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
		_	splitter='best'),	
		trade	learning_rate=1.0, n_estimators=100,	0.0250272
40_min_cat	15	Z	random_state=None)	25
		A 1	ExtraTreesClassifier(bootstrap=False,	0.0246402
40 min ==+	4.5	trade	class_weight=None, criterion='gini',	0.0246103
40_min_cat	15	Z	max_depth=2, max_features='auto',	73

İ	1		max_leaf_nodes=None,	
			min samples leaf=1, min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob score=False, random state=None,	
			verbose=0, warm_start=False)	0.0242044
40		trade	C · NB	0.0242044
40_min_cat	8	Z	GaussianNB	85
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0224863
40_min_cat	4	Z	verbose=0, warm_start=False)	1
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0223038
40 min cat	43	Z	verbose=0, warm_start=False)	42
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=2, max_features='auto',	
			max_leaf_nodes=None,	
			min samples leaf=1, min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0202490
40 min cat	8	Z	verbose=0, warm start=False)	25
10_11111_cat	3	_	SVC(C=0.01, cache_size=1024,	23
			class_weight='balanced', coef0=0.0,	
			decision function shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0184698
40 min cat	8	Z	tol=0.001, verbose=False)	93
40_min_cat	8			33
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
		Aug -1 -	max_depth=64, max_features='sqrt',	0.0400543
40 main	4-	trade	max_leaf_nodes=None,	0.0180512
40_min_cat	15	Z	min_samples_leaf=1, min_samples_split=2,	1

1		Ī	min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0,	
			warm_start=False)	
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
		trade	splitter='best'),	0.0170200
40_min_cat	8	Z	learning_rate=1.0, n_estimators=50, random_state=None)	0.0179300 56
	0		SVC(C=1, cache_size=1024, class_weight=None,	30
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0172848
40_min_cat	15	Z	tol=0.001, verbose=False)	69
		trade		0.0167725
40_min_cat	4	Z	voting_hard	47
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
40	4.5	trade	n_neighbors=100, p=2,	0.0163299
40_min_cat	15	Z	weights='distance')	99
40 min cat	15	trade	voting hard	0.0153985
40_min_cat	15	Z	voting_hard RandomForestClassifier/hootstran=True	29
			RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini',	
			max_depth=1, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0151640
40_min_cat	8	Z	warm_start=False)	49
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
		trade	metric_params=None, n_jobs=1,	0.0144648
40_min_cat	4	Z	n_neighbors=5, p=2,	18

			weights='uniform')	
			AdaBoostClassifier(algorithm='SAMME.R',	
		trade	base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=2, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), learning_rate=1.0, n_estimators=400,	0.0144114
40_min_cat	4	Z	random_state=None)	52
			LogisticRegression(C=1, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None,	
		trade	solver='liblinear', tol=0.0001,	0.0135202
40_min_cat	15	Z	verbose=0, warm_start=False) LogisticRegression(C=100.0, class_weight=None,	99
		trade	dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001,	0.0134061
40_min_cat	8	Z	verbose=0, warm_start=False)	97
		trade		0.0127239
40_min_cat	15	Z	GaussianNB	37
40_min_cat	8	trade Z	voting_hard	0.0117308 99
10_11111_eat		trade	V00115_110110	0.0114337
40_min_cat	4	Z	voting_soft	52
		trade		0.0099397
40_min_cat	15	Z	voting_soft KNaighborsClassifier(algorithm='auto'	61
		trade	KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=1,	0.0082013
40_min_cat	8	Z	n_neignbors=5, p=1, weights='uniform')	7
			LogisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None,	
40 main		trade	solver='liblinear', tol=0.0001,	0.0077830
40_min_cat	4	Z	verbose=0, warm_start=False)	39

I		trade		0.0026385
40_min_cat	8	Z	voting_soft	08
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
40_min_high_	4.5	trade	verbose=0,	0.3384909
cat	15	Z	warm_start=False)	13
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
40_min_high_		trade	oob_score=False, random_state=None,	0.3156430
cat	15	Z	verbose=0, warm_start=False)	11
			SVC(C=1, cache_size=1024, class_weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
40_min_high_		trade	random_state=None, shrinking=True,	0.2792791
cat	15	Z	tol=0.001, verbose=False)	31
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini', max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n estimators=100, n jobs=1,	
40_min_high_		trade	oob score=False, random state=None,	0.2628696
cat	8	Z	verbose=0, warm_start=False)	67
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
40		A 1	oob_score=False, random_state=None,	0.2424000
40_min_high_	0	trade	verbose=0,	0.2424892
cat	8	Z	warm_start=False)	89

base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=2, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_pplit=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), learning_rate=1.0, n_estimators=100, 0.2374820 random_state=None, splitter='best'), learning_rate=1.0, n_estimators=100, o.2374820 random_state=None, criterion='gini', max_depth=3, max_features=None, max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') splitter=				AdaBoostClassifier(algorithm='SAMME.R',	
ht=None, criterion='gini', max_depth=2,				hase estimator=DecisionTreeClassifier(class weig	
max_features=None, max_features=lone, max_features=None, max_feat_nodes=None, min_samples_feaf=1, min_samples_fileaf=1, min_samples_fileaf=1, min_samples_fileaf=1, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitters_fileaf=1, min_samples_fileaf=10, n_estimators=100, 0.2374820 2 random_state=None, ozerostate=None, max_features=None, max_features=None, max_features=None, max_features=None, min_samples_fileaf=1, min_sampl					
max_leaf_nodes=None, min_samples_leaf=1,					
min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best'), learning_rate=1.0, n_estimators=100, 0.2374820 learning_rate=1.0, n_estimators=100, 0.2374820 learning_rate=1.0, n_estimators=100, 0.2374820 learning_rate=1.0, n_estimators=100, 0.2374820 learning_rate=1.0, n_estimators=100, 0.2374820 learning_rate=1.0, n_estimators=100, 0.2374820 learning_rate=1.0, n_estimators=100, 0.2374820 learning_rate=1.0, n_estimators=100, 0.2073240 learning_simi', max_death=64, max_features=None, o.2073240 learning_simi', max_death=64, max_features='sqrt', max_leaf_nodes=None, oriterion='gini', max_death=64, max_features='sqrt', max_leaf_nodes=None, oriterion='gini', max_death=64, max_features=loon, oriterion='gini', max_death=64, max_features=loon, oriterion='gini', max_death=64, max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features=loon, oriterion='gini', max_features='auto', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features='auto', oriterion='gini', max_features				_	
Min_weight_fraction_leaf=0.0,					
splitter='best'), learning_rate=1.0, n_estimators=100, random_state=None, criterion='gini', max_depth=3, max_features=None, max_leaf_nodes=None, criterion='gini', max_depth=3, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, calss_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, criterion='entropy', max_depth=64, max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, criterion='entropy', max_depth=5, max_features=None, max_features=None, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, criterion='entropy', max_depth=6, max_features=None, n_jobs=1, n_neighbors=5, p=2, weight=None, criterion='eninkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=2, weight=None, criterion='gini', max_depth=64, max_features='auto', max_leaf_nodes=None, criterion='gini', max_depth=64, max_features='auto', max_leaf_nodes=None, 0.1199276					
40_min_high_ cat					
Cat				splitter='best'),	
DecisionTreeClassifier(class_weight=None, criterion=igini', max_depth=3, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, class_weight=None, criterion=igini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, obs_score=False, random_state=None, criterion=igini', max_leaf_nodes=None, min_samples_leaf=0.0, n_estimators=100, n_jobs=1, obs_score=False, random_state=None, criterion=igini', max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, criterion=igini', max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, 0.1645815 splitter='best') 40_min_high_ trade trade trade trade trade cat 4 Z weights=light[algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=2, 0.1303962 weights=light=None, criterion='gini', max_depth=64, max_features='auto', max_depth=64, max_features='auto', max_depth=64, max_features='auto', 0.1199276	40_min_high_		trade	learning_rate=1.0, n_estimators=100,	0.2374820
criterion='gini', max_depth=3,	cat	15	Z	random_state=None)	92
max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, one class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, one criterion='einri', max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, one criterion='entropy', max_depth=5, max_features=None, one criterion='entropy', max_depth=5, max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, one criterion='entropy', max_depth=5, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, one criterion='entropy', max_depth=5, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, one criterion='entropy', max_depth=64, max_leaf=0.0, one criterion='entropy', max_depth=64, max_leaf=0.0, one criterion='entropy', max_depth=64, max_leaf=0.0, one criterion='entropy', max_depth=64, max_leaf=0.0, one criterion='entropy', max_depth=64, max_features='auto', one criterion='entropy', max_depth=64, max_features='auto', one criterion='entropy', max_depth=64, max_features='auto', one criterion='entropy', max_depth=64, max_features='auto', one criterion='entropy', max_depth=64, max_features='auto', one criterion='entropy', max_depth=64, max_features='auto', one criterion='entropy', one criterion='entropy', max_depth=64, max_features='auto', one criterion='entropy', max_depth=64, max_features='auto', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one criterion='entropy', one crite				DecisionTreeClassifier(class_weight=None,	
max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, nob_score=False, random_state=None, verbose=0				criterion='gini', max_depth=3,	
min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, state=None, state=None, rusade rusade rusade rusade rusades_None, criterion='gini', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, rutade rusades_None, max_leaf_nodes=None, warm_start=False) DecisionTreeClassifier(class_weight=None, criterion='entropy', max_depth=5, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, strade rusades_None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, strade rusades_None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, strade rusades_None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, strade=0.0, presort=False, random_stat				max_features=None,	
min_weight_fraction_leaf=0.0,					
40_min_high_ cat trade presort=False, random_state=None, 0.2073240 11 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, verbose=0, occeptables and verbose=0. 0.2055339 2 Warm_start=False) 06 3 DecisionTreeClassifier(class_weight=None, criterion='entropy', max_depth=5, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') 0.1645815 40_min_high_ cat trade splitter='best') 45 KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=2, weights='uniform') 0.1303962 40_min_high_ cat 4 Z ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', max_leaf_nodes=None, 0.1199276					
cat 8 Z splitter='best') 11 RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_obs_core=False, random_state=None, verbose=0, 2 warm_start=False) 06 DecisionTreeClassifier(class_weight=None, criterion='entropy', max_depth=5, max_leaf_nodes=None, min_samples_split=2, min_weight_fraction_leaf=0.0, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') 45 KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=2,				min_weight_fraction_leaf=0.0,	
RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, 2 warm_start=False) 06 DecisionTreeClassifier(class_weight=None, criterion='entropy', max_depth=5, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, o.1645815	40_min_high_		trade	_	0.2073240
class_weight=None, criterion='gini',	cat	8	Z	•	11
max_depth=64, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, 0.2055339 DecisionTreeClassifier(class_weight=None, criterion='entropy', max_depth=5, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=2, cat 4 Z weights='uniform') ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', max_leaf_nodes=None, 0.1199276				•	
max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, z warm_start=False) DecisionTreeClassifier(class_weight=None, criterion='entropy', max_depth=5, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=2, veights='uniform') ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', 40_min_high_ trade max_leaf_nodes=None, 0.1199276					
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min_weight_fraction_leaf=0.0,					
n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, verbose=0, DecisionTreeClassifier(class_weight=None, criterion='entropy', max_depth=5, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=2, weights='uniform') ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', max_leaf_nodes=None, 0.2055339 0.20553					
oob_score=False, random_state=None, verbose=0, 2					
40_min_high_ cat					
cat43Zwarm_start=False)06cat43Zwarm_start=False)06catDecisionTreeClassifier(class_weight=None, criterion='entropy', max_depth=5, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best')0.164581540_min_high_ catTKNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=2, weights='uniform')0.130396240_min_high_ cat4Zweights='uniform')17ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', max_depth=64, max_features='auto', max_leaf_nodes=None,0.1199276					
DecisionTreeClassifier(class_weight=None, criterion='entropy', max_depth=5, max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, presort=False, random_state=None, splitter='best') 40_min_high_ trade presort=False, random_state=None, splitter='best') KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, n_neighbors=5, p=2, ueights='uniform') ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', do_min_high_ trade max_leaf_nodes=None, 0.1199276					
criterion='entropy', max_depth=5,	cat	43	Z	-	06
max_features=None, max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, 40_min_high_ cat 15 Z splitter='best') 45 KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, 40_min_high_ cat 4 Z weights='uniform') 17 ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', 40_min_high_ trade max_leaf_nodes=None, 0.1199276					
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min_samples_split=2, min_weight_fraction_leaf=0.0, 40_min_high_ cat 15 Z splitter='best') KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, 40_min_high_ cat 4 Z weights='uniform') ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', 40_min_high_ trade min_samples_split=2, min_weight=Rone, 0.1645815 KNeighborsClassifier(algorithm='auto', metric_params=None, n_jobs=1, 0.1303962				_	
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leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1, 40_min_high_trade trade n_neighbors=5, p=2, cat 4 Z weights='uniform') ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', 40_min_high_trade max_leaf_nodes=None, 0.1199276	cat	15		•	45
metric_params=None, n_jobs=1, 40_min_high_ cat					
40_min_high_ cat					
cat4Zweights='uniform')17ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', trade40_min_high_trademax_leaf_nodes=None,0.1199276	40 min high		trade	<u> </u>	0 1303062
ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=64, max_features='auto', 40_min_high_ trade max_leaf_nodes=None, 0.1199276		4			
class_weight=None, criterion='gini', max_depth=64, max_features='auto', 40_min_high_ trade max_leaf_nodes=None, 0.1199276					17
max_depth=64, max_features='auto', 40_min_high_ trade max_leaf_nodes=None, 0.1199276				• • • • • • • • • • • • • • • • • • • •	
40_min_high_ trade max_leaf_nodes=None, 0.1199276					
	40 min high		trade		0.1199276
		4			

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			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min weight fraction leaf=0.0,	
			n_estimators=30, n_jobs=1,	
40			oob_score=False, random_state=None,	0.4076047
40_min_high_		trade	verbose=0,	0.1076247
cat	4	Z	warm_start=False)	53
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min weight fraction leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
40_min_high_		trade	learning_rate=1.0, n_estimators=50,	0.0791072
cat	8	Z	random_state=None)	99
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
40_min_high_		trade	learning_rate=1.0, n_estimators=200,	0.0788339
cat	4	Z	random_state=None)	86
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
40_min_high_		trade	n_neighbors=5, p=1,	0.0538869
	8	Z	weights='uniform')	86
Lat		_	KNeighborsClassifier(algorithm='auto',	
cat		ı	, ,	
Cat			loof size-20 metric-lminkeyeskil	
Cat			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	0.050505
40_min_high_	15	trade Z	<u> </u>	0.0525931

	l	İ	SVC/C=0.01 cacho cizo=1034	l l
			SVC(C=0.01, cache_size=1024, class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
40_min_high_		trade	random_state=None, shrinking=True,	
cat	4	Z	tol=0.001, verbose=False)	0.0477442
Cat	-		SVC(C=0.01, cache_size=1024,	0.0477442
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
40_min_high_		trade	random_state=None, shrinking=True,	0.0381798
cat	8	Z	tol=0.001, verbose=False)	78
0			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit intercept=True, intercept scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random state=None,	
40_min_high_		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0381213
cat	4	Z	warm_start=False)	99
40_min_high_		trade	-	0.0208009
cat	8	Z	GaussianNB	28
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=10,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
40_min_high_		trade	presort=False, random_state=None,	0.0192586
cat	4	Z	splitter='best')	09
40_min_high_		trade		0.0024684
cat	15	Z	GaussianNB	4
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
40 mains bible		A1 -	penalty='l2', random_state=None,	
40_min_high_		trade	solver='liblinear', tol=0.0001,	
cat	8	Z	verbose=0, warm_start=False)	0
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
40_min_high_		trade	penalty='l2', random_state=None,	
cat	15	Z	solver='liblinear', tol=0.0001,	0
cai	12		SUIVEI - HUHHEAI , LUI-U.UUUI,	U

			verbose=0, warm_start=False)	
			ExtraTreesClassifier(bootstrap=False,	
			class weight=None, criterion='gini',	
			max_depth=1, max_features='auto',	
			max leaf nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
40_min_high_		trade	oob_score=False, random_state=None,	
cat	43	Z	verbose=0, warm_start=False)	0
40_min_high_	43	trade	verbose-o, warm_start-raise;	<u> </u>
cat	4	Z	voting_hard	0
40_min_high_	4	trade	voting_naru	0
cat	8	Z	voting_hard	0
40_min_high_	8	trade	voting_naru	0
cat	15	Z	voting_hard	0
40 min high	13	trade	voting_naru	0
	4		voting coft	0
cat	4	Z trade	voting_soft	0
40_min_high_			voting coft	0
cat	8	Z	voting_soft	0
40_min_high_	15	trade		0
cat	15	Z	voting_soft	0
40 main binb				-
40_min_high_		trade	CouncingND	0.0113892
cat	4	Z	GaussianNB	19
40_min_updo		trade	CoursianND	0.0402321
wn	8	Z	GaussianNB	34
40_min_updo		trade	water band	0.0314345
wn	8	Z	voting_hard	36
40_min_updo	15	trade	CoursianND	0.0303296
wn	15	Z	GaussianNB	75
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=2, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
40 main		- لمصرية	oob_score=False, random_state=None,	0.0200024
40_min_updo		trade	verbose=0,	0.0288624
wn	8	Z	warm_start=False)	57
40_min_updo	_	trade	CoursianNB	0.0288203
wn	4	Z	GaussianNB	42
			SVC(C=1, cache_size=1024, class_weight=None,	
40			coef0=0.0,	0.020202
40_min_updo	_	trade	decision_function_shape=None, degree=3,	0.0282999
wn	4	Z	gamma='auto', kernel='rbf',	64

I			max_iter=-1, probability=False,	
			random_state=None, shrinking=True,	
			tol=0.001, verbose=False)	
40_min_updo		trade	·	0.0266569
wn	15	Z	voting_hard	5
			LogisticRegression(C=0.1, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
40_min_updo		trade	solver='liblinear', tol=0.0001,	0.0260038
wn	8	Z	verbose=0, warm_start=False)	24
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
40_min_updo		trade	oob_score=False, random_state=None, verbose=0,	0.0256821
wn	4	Z	warm_start=False)	41
VVII	4		ExtraTreesClassifier(bootstrap=False,	41
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
40_min_updo		trade	oob_score=False, random_state=None,	0.0255118
wn	8	Z	verbose=0, warm_start=False)	4
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=4, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
40_min_updo		trade	verbose=0,	0.0243466
wn	43	Z	warm_start=False)	55
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
40_min_updo		trade	multi_class='ovr', n_jobs=1, penalty='l2', random_state=None,	0.0238733
:	15	Z	solver='liblinear', tol=0.0001,	0.0238733 5
wn	12		SUIVEI - IIDIIIIEdi , LUI-U.UUUI,	5

			verbose=0, warm_start=False)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
40 min undo		trade		0.0225145
40_min_updo	4		oob_score=False, random_state=None,	
wn	4	Z	verbose=0, warm_start=False)	31
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
40_min_updo		trade	oob_score=False, random_state=None,	0.0207872
wn	43	Z	verbose=0, warm_start=False)	73
40_min_updo		trade		0.0206704
wn	4	Z	voting_hard	71
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
40_min_updo		trade	learning rate=1.0, n estimators=200,	0.0205602
wn	8	Z	random_state=None)	86
	<u> </u>	_	RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=4, max_features='sqrt',	
			max_leaf nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
40		l	oob_score=False, random_state=None,	0.00000
40_min_updo	4-	trade	verbose=0,	0.0202650
wn	15	Z	warm_start=False)	38
40_min_updo		trade		0.0202554
wn	15	Z	voting_soft	95
40_min_updo		trade		0.0191686
	4	Z	voting_soft	61

I	1		DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0,	
40_min_updo		trade	presort=False, random_state=None,	0.0185665
wn	8	Z	splitter='best')	02
	_		AdaBoostClassifier(algorithm='SAMME.R',	
			,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
40_min_updo		trade	learning_rate=1.0, n_estimators=100,	0.0164909
wn	15	Z	random_state=None)	5
40_min_updo		trade		0.0161866
wn	8	Z	voting_soft	01
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
40_min_updo		trade	n_neighbors=100, p=2,	0.0160489
wn	15	Z	weights='distance')	04
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
40_min_updo		trade	oob_score=False, random_state=None,	0.0156010
wn	15	Z	verbose=0, warm_start=False)	37
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	0.04.47007
40_min_updo		trade	n_neighbors=25, p=2,	0.0147937
wn	4	Z	weights='distance')	23
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
10 mind-		+rada	metric_params=None, n_jobs=1,	0.0143541
40_min_updo	8	trade Z	n_neighbors=25, p=1,	0.0143541
WN			weights='distance')	52
40_min_updo	4	trade	LogisticRegression(C=0.0001, class_weight=None,	0.0133482

wn	I	Z	dual=False,	13
VVII		~	fit_intercept=True, intercept_scaling=1,	13
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random state=None,	
			_	
			solver='liblinear', tol=0.0001, verbose=0,	
			warm_start=False)	
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=5,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
40_min_updo		trade	presort=False, random_state=None,	0.0122396
wn	15	Z	splitter='best')	14
			SVC(C=1, cache_size=1024, class_weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
40_min_updo		trade	random_state=None, shrinking=True,	0.0111036
wn	15	Z	tol=0.001, verbose=False)	51
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=70,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
40_min_updo		trade	presort=False, random_state=None,	0.0101921
wn	4	Z	splitter='best')	14
			SVC(C=1, cache size=1024, class weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
40_min_updo		trade	random_state=None, shrinking=True,	0.0096877
wn	8	Z	tol=0.001, verbose=False)	48
VVII	0		AdaBoostClassifier(algorithm='SAMME.R',	70
			Auguoustelassiliei (algoritiiiii – SAlviivie.n.,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
40			presort=False, random_state=None,	0.000.400.5
40_min_updo	_	trade	splitter='best'),	0.0094904
wn	4	Z	learning_rate=1.0, n_estimators=50,	84

			random_state=None)	
			DecisionTreeClassifier(class weight=None,	
			criterion='entropy', max_depth=38,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random_state=None,	0.0269112
5 min cat	8	Z	splitter='best')	3
			DecisionTreeClassifier(class weight=None,	
			criterion='gini', max_depth=3,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random state=None,	0.0244755
5_min_cat	15	Z	splitter='best')	18
			AdaBoostClassifier(algorithm='SAMME.R',	
			, č	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
		trade	learning_rate=1.0, n_estimators=400,	0.0231587
5_min_cat	4	Z	random_state=None)	68
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max depth=16, max features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0229445
5_min_cat	15	Z	verbose=0, warm_start=False)	59
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric params=None, n jobs=1,	
		trade	n_neighbors=25, p=2,	0.0212701
5_min_cat	4	Z	weights='uniform')	23
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
		trade	max depth=64, max features='auto',	0.0211957
5_min_cat	43	Z	max_leaf_nodes=None,	17
			,	

I	I	Ĭ		ı
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0205471
5_min_cat	4	Z	verbose=0, warm_start=False)	09
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0201635
5_min_cat	4	Z	warm_start=False)	46
		trade		0.0199301
5_min_cat	8	Z	voting_soft	74
	4-	trade		0.0197219
5_min_cat	15	Z	GaussianNB	41
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
		l.,	oob_score=False, random_state=None,	0.0100:00
		trade	verbose=0,	0.0196488
5_min_cat	8	Z	warm_start=False)	56
		trade		0.0189988
5_min_cat	8	Z	voting_hard	87
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	0.0405054
F		trade	n_neighbors=25, p=2,	0.0186954
5_min_cat	8	Z	weights='distance')	36
 		trade	ExtraTreesClassifier(bootstrap=False,	0.0183166
5_min_cat	8	Z	class_weight=None, criterion='gini',	54

	İ	İ	may donth-22 may footures-loutel	Ì
			max_depth=32, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max depth=8, max features='sqrt',	
			max leaf nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
		+ = = = =		0.0170270
Fint	4.5	trade	verbose=0,	0.0179370
5_min_cat	15	Z	warm_start=False)	19
		trade		0.0177106
5_min_cat	8	Z	GaussianNB	3
			SVC(C=1, cache_size=1024, class_weight={0: 100,	
			2: 100}, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0174603
5_min_cat	4	Z	tol=0.001, verbose=False)	22
			AdaBoostClassifier(algorithm='SAMME.R',	
			(a.g.,,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			_	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
		trade	learning_rate=1.0, n_estimators=50,	0.0173587
5_min_cat	8	Z	random_state=None)	01
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min samples leaf=1, min samples split=2,	
			min weight fraction leaf=0.0,	
			n_estimators=100, n_jobs=1,	
		- لم حميد	oob_score=False, random_state=None,	0.0473000
F	40	trade	verbose=0,	0.0173006
5_min_cat	43	Z	warm_start=False)	07

			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=52,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random_state=None,	0.0171519
5_min_cat	4	Z	splitter='best')	0.0171313
J_IIIII_cat	4		AdaBoostClassifier(algorithm='SAMME.R',	3
			Adaboostclassifier (algorithm - SAMMVIL.IV)	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
		trade	learning_rate=1.0, n_estimators=400,	0.0159027
5_min_cat	15	Z	random_state=None)	26
5_IIIII_cat	15	trade	random_state=None)	0.0148642
5_min_cat	4	Z	voting_soft	71
5_IIIII_cat	4		LogisticRegression(C=0.0001, class_weight=None,	/1
			dual=False,	
			, ,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	0.0120664
F		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0139664
5_min_cat	4	Z	warm_start=False)	08
E min cat	15	trade Z	voting soft	0.0130804 25
5_min_cat	13		KNeighborsClassifier(algorithm='auto',	25
			leaf_size=30, metric='minkowski',	
		+204-	metric_params=None, n_jobs=1,	0.0136010
F min+	1-	trade	n_neighbors=25, p=1,	0.0126918
5_min_cat	15	Z	weights='distance')	36
F		trade	ting bound	0.0122223
5_min_cat	4	Z	voting_hard	01
Fin	4-	trade	din - hd	0.0121980
5_min_cat	15	Z	voting_hard	64
			SVC(C=0.01, cache_size=1024, class_weight={0:	
			100, 2: 100}, coef0=0.0,	
			decision_function_shape=None, degree=3,	
		_	gamma='auto', kernel='rbf',	
		trade	max_iter=-1, probability=False,	0.0107200
5_min_cat	8	Z	random_state=None, shrinking=True,	45

			tol=0.001, verbose=False)	
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0100324
5_min_cat	15	Z	warm_start=False)	19
		trade		0.0092325
5_min_cat	4	Z	GaussianNB	43
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			<pre>fit_intercept=True, intercept_scaling=1,</pre>	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0088639
5_min_cat	8	Z	warm_start=False)	14
			SVC(C=1, cache_size=1024, class_weight={0: 100,	
			2: 100}, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0012047
5_min_cat	15	Z	tol=0.001, verbose=False)	09
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min weight fraction leaf=0.0,	
			n estimators=10, n jobs=1,	
			oob_score=False, random_state=None,	
5_min_high_c		trade	verbose=0,	0.1939736
at	8	Z	warm_start=False)	51
			ExtraTreesClassifier(bootstrap=False,	
			class weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max leaf nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n estimators=10, n jobs=1,	
5_min_high_c		trade	oob score=False, random state=None,	0.1361016
at	43	Z	verbose=0, warm_start=False)	93
5_min_high_c	.5	trade	RandomForestClassifier(bootstrap=True,	0.1326015
at	43	Z	class_weight=None, criterion='gini',	56
				50

	l	ĺ	max_depth=64, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min weight fraction leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0,	
			warm_start=False)	
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
C main high a		4a.al.a	metric_params=None, n_jobs=1,	0.1222626
5_min_high_c		trade	n_neighbors=5, p=1,	0.1222636
at	8	Z	weights='uniform')	74
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
5_min_high_c		trade	presort=False, random_state=None,	0.1170618
at	15	Z	splitter='best')	68
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
5_min_high_c		trade	verbose=0,	0.1119555
at	15	Z	warm_start=False)	39
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min samples leaf=1, min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			n estimators=100, n jobs=1,	
			oob score=False, random state=None,	
5 min high c		trade	verbose=0,	0.1076684
at	4	Z	warm_start=False)	18
		_	ExtraTreesClassifier(bootstrap=False,	10
			class weight=None, criterion='gini',	
			max_depth=32, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
5_min_high_c		trade	min_weight_fraction_leaf=0.0,	0.0943651
	15			
at	15	Z	n_estimators=30, n_jobs=1,	94

1	I		oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
5_min_high_c		trade	oob score=False, random state=None,	0.0898074
at	8	Z	verbose=0, warm_start=False)	65
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
5_min_high_c		trade	oob_score=False, random_state=None,	0.0886850
at	4	Z	verbose=0, warm_start=False)	1
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
5_min_high_c		trade	learning_rate=1.0, n_estimators=50,	0.0743561
at	15	Z	random_state=None)	5
5_min_high_c	_	trade		0.0739646
at	4	Z	GaussianNB	77
5_min_high_c	4.5	trade	C ' ND	0.0712775
at	15	Z	GaussianNB	55
			AdaBoostClassifier(algorithm='SAMME.R',	
			hase estimator-DecisionTreeClassifier/class weig	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4, max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min weight fraction leaf=0.0,	
			presort=False, random_state=None,	
5_min_high_c		trade	splitter='best'),	0.0616145
at	8	Z	learning_rate=1.0, n_estimators=100,	28
u t			150111116_1010-1.0, 11_C3011101013-100,	20

			random_state=None)	
			AdaBoostClassifier(algorithm='SAMME.R',	
			,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
5_min_high_c		trade	learning_rate=1.0, n_estimators=200,	0.0427356
at	4	Z	random_state=None)	05
5_min_high_c		trade		0.0407621
at	8	Z	GaussianNB	56
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
5_min_high_c		trade	presort=False, random_state=None,	0.0395880
at	4	Z	splitter='best')	26
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
5_min_high_c		trade	n_neighbors=5, p=1,	0.0384509
at	4	Z	weights='uniform')	57
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
5_min_high_c		trade	n_neighbors=5, p=2,	0.0384417
at	15	Z	weights='uniform')	89
			SVC(C=0.01, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
5_min_high_c		trade	random_state=None, shrinking=True,	0.0382080
at	15	Z	tol=0.001, verbose=False)	86
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
5_min_high_c		trade	solver='liblinear', tol=0.0001,	0.0323011
at	8	Z	verbose=0, warm_start=False)	97

I	1		SVC(C=0.01, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
5_min_high_c		trade	random_state=None, shrinking=True,	0.0274256
at	8	Z	tol=0.001, verbose=False)	65
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=10,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
5_min_high_c		trade	presort=False, random_state=None,	0.0244290
at	8	Z	splitter='best')	5
			LogisticRegression(C=0.01, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
5_min_high_c		trade	solver='liblinear', tol=0.0001,	0.0118689
at	15	Z	verbose=0, warm_start=False)	03
			SVC(C=0.0001, cache_size=1024, class_weight={0:	
			100, 2: 100}, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
5_min_high_c		trade	random_state=None, shrinking=True,	0.0097057
at	4	Z	tol=0.001, verbose=False)	53
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
E min high a		+ = = = =	penalty='l2', random_state=None, solver='liblinear', tol=0.0001,	
5_min_high_c	4	trade Z	verbose=0, warm_start=False)	0
at 5_min_high_c	4	trade	verbose-o, warm_start=raise;	0
at	4	Z	voting_hard	0
5_min_high_c	4	trade	VOUNE_NAIG	0
at	8	Z	voting_hard	0
5_min_high_c	8	trade	**************************************	
at	15	Z	voting_hard	0
5_min_high_c	13	trade	**************************************	
at	4	Z	voting_soft	0
5_min_high_c	7	trade		
at	8	Z	voting_soft	0
5_min_high_c	15	trade	voting_soft	0
		5.5.6.6	<u>0_</u>	J

at		Z		
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
5_min_updow		trade	verbose=0,	0.0228767
n l	15	Z	warm_start=False)	29
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max depth=32, max features='sgrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
5_min_updow		trade	verbose=0,	0.0191519
n .	8	Z	warm_start=False)	62
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
5_min_updow		trade	oob_score=False, random_state=None,	0.0190996
n	8	Z	verbose=0, warm_start=False)	6
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
5_min_updow		trade	presort=False, random_state=None,	0.0183221
n	8	Z	splitter='best')	51
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
5_min_updow		trade	oob_score=False, random_state=None,	0.0181127
n	4	Z	verbose=0,	13

			warm_start=False)	
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='sqrt',	
			max leaf nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n estimators=100, n jobs=1,	
			oob_score=False, random_state=None,	
5_min_updow		trade	verbose=0,	0.0179886
n	43	Z	warm_start=False)	69
		_	DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0,	
5 min updow		trade	presort=False, random_state=None,	0.0176907
	15	Z	splitter='best')	75
n	15		SVC(C=1, cache size=1024, class weight=None,	/5
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	0.0476040
5_min_updow		trade	random_state=None, shrinking=True,	0.0176812
n	4	Z	tol=0.001, verbose=False)	86
5_min_updow		trade		0.0171669
n	8	Z	GaussianNB	11
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
5_min_updow		trade	oob_score=False, random_state=None,	0.0170945
n	4	Z	verbose=0, warm_start=False)	96
5_min_updow		trade		0.0169926
n	15	Z	GaussianNB	44
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
5_min_updow		trade	n_neighbors=100, p=1,	0.0163999
n	4	Z	weights='uniform')	1
5_min_updow		trade		0.0162489
n .	8	Z	voting_hard	64
5 min updow	4	trade	AdaBoostClassifier(algorithm='SAMME.R',	0.0158561

n		Z		79
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random state=None,	
			splitter='best'),	
			learning_rate=1.0, n_estimators=200,	
			random_state=None)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0, n estimators=30, n jobs=1,	
5_min_updow		trade	oob_score=False, random_state=None,	0.0153076
	15	Z	verbose=0, warm_start=False)	0.0153076
n	15			05
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
5_min_updow	_	trade	presort=False, random_state=None,	0.0152422
n	4	Z	splitter='best')	09
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		_	n_estimators=10, n_jobs=1,	
5_min_updow		trade	oob_score=False, random_state=None,	0.0149180
n	43	Z	verbose=0, warm_start=False)	56
			SVC(C=1, cache_size=1024, class_weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
5_min_updow		trade	random_state=None, shrinking=True,	0.0149176
n	8	Z	tol=0.001, verbose=False)	14
5_min_updow		trade		0.0147358
	15	Z	voting_hard	28
n	13		10ting_nara	

n		Z	leaf_size=30, metric='minkowski',	84
			metric_params=None, n_jobs=1,	
			n_neighbors=100, p=1,	
			weights='distance')	
5_min_updow		trade		0.0128750
n	8	Z	voting_soft	73
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
5_min_updow		trade	learning_rate=1.0, n_estimators=50,	0.0128414
n	8	Z	random_state=None)	79
5_min_updow		trade		0.0120906
n	4	Z	GaussianNB	35
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
5_min_updow		trade	n_neighbors=100, p=2,	0.0115630
n	15	Z	weights='uniform')	04
			SVC(C=0.01, cache_size=1024,	
			class_weight=None, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
5_min_updow	4-	trade	random_state=None, shrinking=True,	0.0113891
n 	15	Z	tol=0.001, verbose=False)	39
5_min_updow		trade	6	0.0113709
n	4	Z	voting_soft	02
5_min_updow	4.5	trade	tinti	0.0109926
n F	15	Z	voting_soft	91
5_min_updow		trade	ting bound	0.0105004
n	4	Z	voting_hard	6
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
E min unda		+rada	random_state=None,	0.0000646
5_min_updow		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0099646
n F. main,m.da	8	Z	warm_start=False)	61
5_min_updow	15	trade	AdaBoostClassifier(algorithm='SAMME.R',	0.0096001

n		Z		1
			base_estimator=DecisionTreeClassifier(class_weig	_
			ht=None, criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
			learning_rate=1.0, n_estimators=200,	
			random_state=None)	
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
5_min_updow		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0076606
n	15	Z	warm_start=False)	59
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			<pre>fit_intercept=True, intercept_scaling=1,</pre>	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
5_min_updow		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0050870
n	4	Z	warm_start=False)	66
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max depth=2,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min weight fraction leaf=0.0,	
		trade	presort=False, random_state=None,	0.0745194
80_min_cat	4	Z	splitter='best')	59
oo_mm_cat			DecisionTreeClassifier(class_weight=None,	33
			criterion='gini', max_depth=5,	
			max_features=None,	
			_	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
		A 1	min_weight_fraction_leaf=0.0,	0.0560405
00	_	trade	presort=False, random_state=None,	0.0560405
80_min_cat	8	Z	splitter='best')	66
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
		trade	n_neighbors=300, p=2,	0.0482204
80_min_cat	15	Z	weights='uniform')	01

1 1		1	KNeighborsClassifier(algorithm='auto',	İ
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
		trade	n_neighbors=300, p=2,	0.0479306
80 min cat	8	Z	weights='distance')	49
			SVC(C=1, cache size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0466871
80_min_cat	4	Z	tol=0.001, verbose=False)	41
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
		trade	n_neighbors=300, p=2,	0.0453293
80_min_cat	4	Z	weights='distance')	43
	_	trade		0.0452534
80_min_cat	4	Z	voting_soft	92
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=4, max_features='sqrt', max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0450251
80_min_cat	4	Z	warm_start=False)	0.0 130231
	<u>-</u>	trade		0.0448312
80_min_cat	8	Z	voting_soft	15
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0433811
80_min_cat	15	Z	warm_start=False)	36
		trade		0.0432265
80_min_cat	15	Z	voting_soft	54
			AdaBoostClassifier(algorithm='SAMME.R',	
		trade	base_estimator=DecisionTreeClassifier(class_weig	0.0422287
80 min cat		1		

1		Ì	max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
			learning_rate=1.0, n_estimators=400,	
			random state=None)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max depth=16, max features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0417120
80_min_cat	8	Z	verbose=0, warm_start=False)	02
_		trade		0.0396491
80_min_cat	8	Z	voting_hard	99
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=4, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
		trade	verbose=0,	0.0395446
80_min_cat	8	Z	warm_start=False)	84
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		trade	presort=False, random_state=None,	0.0385179
80_min_cat	15	Z	splitter='best')	86
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=2, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
		_	n_estimators=30, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0358193
80_min_cat	43	Z	verbose=0, warm_start=False)	71
80_min_cat	43	trade	RandomForestClassifier(bootstrap=True,	0.0355124

		Z	class_weight=None, criterion='gini',	39
			ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=8, max_features='auto', max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1,	
		trade	oob_score=False, random_state=None,	0.0351887
80_min_cat	4	Z	verbose=0, warm_start=False)	6
00 min oot	4	trade	veting hard	0.0350016
80_min_cat	4	Z	voting_hard AdaBoostClassifier(algorithm='SAMME.R',	43
			base_estimator=DecisionTreeClassifier(class_weig ht=None, criterion='gini', max_depth=4,	
		trade	learning_rate=1.0, n_estimators=100,	0.0340860
80_min_cat	4	Z	random_state=None) ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini', max_depth=1, max_features='auto', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1,	18
		trade	oob_score=False, random_state=None,	0.0331047
80_min_cat	15	Z	verbose=0, warm_start=False)	57
	_	trade	C · ND	0.0323495
80_min_cat	4	Z	GaussianNB	98
			AdaBoostClassifier(algorithm='SAMME.R',	
		trade	base_estimator=DecisionTreeClassifier(class_weig	0.0295241
80_min_cat	8	Z	ht=None, criterion='gini', max_depth=1,	4

			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
			learning_rate=1.0, n_estimators=200,	
			random_state=None)	
		trade		0.0294158
80_min_cat	8	Z	GaussianNB	95
		trade		0.0277430
80_min_cat	15	Z	voting_hard	5
			SVC(C=0.0001, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision function shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random state=None, shrinking=True,	0.0245100
80_min_cat	8	Z	tol=0.001, verbose=False)	95
			SVC(C=0.0001, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
		trade	random_state=None, shrinking=True,	0.0245100
80_min_cat	15	Z	tol=0.001, verbose=False)	95
			LogisticRegression(C=10.0, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
		trade	solver='liblinear', tol=0.0001,	0.0228660
80_min_cat	4	Z	verbose=0, warm_start=False)	64
		trade		0.0138769
80_min_cat	15	Z	GaussianNB	01
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
		trade	solver='liblinear', tol=0.0001,	0.0071883
80_min_cat	15	Z	verbose=0, warm_start=False)	69
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	_
		trade	multi_class='ovr', n_jobs=1,	0.0059366
80_min_cat	8	Z	penalty='l2', random_state=None,	2
	•		=	

1			solver='liblinear', tol=0.0001,	
			verbose=0, warm_start=False)	
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=4, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
80_min_high_		trade	verbose=0,	0.7167023
cat	8	Z	warm_start=False)	88
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=32, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
80_min_high_		trade	verbose=0,	0.6491876
cat	43	Z	warm_start=False)	18
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
80_min_high_		trade	presort=False, random_state=None,	0.6447873
cat	8	Z	splitter='best')	76
		_	DecisionTreeClassifier(class_weight=None,	, 0
			criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
00 min high		trade	presort=False, random_state=None,	0.6447873
80_min_high_	15		_	
cat	12	Z	splitter='best') RandomForestClassifier(bootstrap=True,	76
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
80_min_high_		trade	verbose=0,	0.5999146
cat	15	Z	warm_start=False)	34

			AdaBoostClassifier(algorithm='SAMME.R',	
			base estimator=DecisionTreeClassifier(class weig	
			ht=None, criterion='gini', max depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
80_min_high_		trade	learning rate=1.0, n estimators=50,	0.3010398
cat	8	Z	random_state=None)	47
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
80_min_high_		trade	oob_score=False, random_state=None,	0.2782843
cat	8	Z	verbose=0, warm_start=False)	11
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=16, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
80_min_high_		trade	oob_score=False, random_state=None,	0.2622724
cat	15	Z	verbose=0, warm_start=False)	97
80_min_high_		trade		0.2141964
cat	4	Z	GaussianNB	2
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=2,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
90 min high		trado	splitter='best'),	0 2110070
80_min_high_	A	trade	learning_rate=1.0, n_estimators=200,	0.2118879
cat	4	Z	random_state=None)	4
			ExtraTreesClassifier(bootstrap=False,	
80 min high		trade	class_weight=None, criterion='gini', max_depth=64, max_features='auto',	0.1625002
80_min_high_	A			0.1625993
cat	4	Z	max_leaf_nodes=None,	22

İ		1	min_samples_leaf=1, min_samples_split=2,	ļ
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			AdaBoostClassifier(algorithm='SAMME.R',	
			Addboosteldssiller (digoritimi = 5/livilvie.iv,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
80_min_high_		trade	learning_rate=1.0, n_estimators=50,	0.1565040
cat	15	Z	random_state=None)	56
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
80_min_high_		trade	verbose=0,	0.1449623
cat	4	Z	warm_start=False)	44
80_min_high_		trade		0.1384888
cat	8	Z	GaussianNB	33
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
80_min_high_		trade	n_neighbors=5, p=1,	0.1274345
cat	8	Z	weights='uniform')	73
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=10,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
80_min_high_		trade	presort=False, random_state=None,	0.1239221
cat	4	Z	splitter='best')	26
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
80_min_high_		trade	n_neighbors=5, p=1,	0.1217028
		Z	weights='uniform')	

I		l	KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
80_min_high_		trade	n_neighbors=5, p=2,	0.0666633
cat	15	Z	weights='uniform')	34
			ExtraTreesClassifier(bootstrap=False,	0.
			class_weight=None, criterion='gini',	
			max_depth=64, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
80_min_high_		trade	oob_score=False, random_state=None,	0.0602705
cat	43	Z	verbose=0, warm_start=False)	71
			SVC(C=1, cache_size=1024,	
			class weight='balanced', coef0=0.0,	
			decision function shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
80_min_high_		trade	random_state=None, shrinking=True,	0.0551747
cat	15	Z	tol=0.001, verbose=False)	46
			SVC(C=0.01, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
80_min_high_		trade	random_state=None, shrinking=True,	0.0511644
cat	8	Z	tol=0.001, verbose=False)	9
80_min_high_		trade		0.0504488
cat	15	Z	GaussianNB	02
			SVC(C=0.01, cache_size=1024,	
			class_weight='balanced', coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
80_min_high_		trade	random_state=None, shrinking=True,	0.0458247
cat	4	Z	tol=0.001, verbose=False)	21
			LogisticRegression(C=0.0001, class_weight=None,	
			dual=False,	
			fit_intercept=True, intercept_scaling=1,	
			max_iter=100,	
			multi_class='ovr', n_jobs=1, penalty='l2',	
			random_state=None,	
80_min_high_		trade	solver='liblinear', tol=0.0001, verbose=0,	0.0073051
cat	4	Z	warm_start=False)	03
80_min_high_		trade	LogisticRegression(C=0.001, class_weight=None,	
	8	Z	dual=False, fit_intercept=True,	0

			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
			solver='liblinear', tol=0.0001,	
			verbose=0, warm_start=False)	
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
80_min_high_		trade	solver='liblinear', tol=0.0001,	
cat	15	Z	verbose=0, warm_start=False)	0
80_min_high_	_	trade		_
cat	4	Z	voting_hard	0
80_min_high_		trade		
cat	8	Z	voting_hard	0
80_min_high_	4.5	trade	tina hand	0
cat	15	Z	voting_hard	0
80_min_high_ cat	4	trade Z	voting_soft	0
80_min_high_	4	trade	Voting_sort	0
cat	8	Z	voting_soft	0
80_min_high_	0	trade	voting_sort	
cat	15	Z	voting_soft	0
			DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=7,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
80_min_updo		trade	presort=False, random_state=None,	0.0420530
wn	15	Z	splitter='best')	87
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
00 min unda		trada	n_estimators=100, n_jobs=1,	
80_min_updo	8	trade Z	oob_score=False, random_state=None,	0.041190
wn	8		verbose=0, warm_start=False) RandomForestClassifier(bootstrap=True,	0.041189
			class_weight=None, criterion='gini',	
			max_depth=2, max_features='sqrt',	
			max_leaf_nodes=None,	
80_min_updo		trade	min_samples_leaf=1, min_samples_split=2,	0.0403628
wn	8	Z	min_weight_fraction_leaf=0.0,	65
		L	0	

1		ĺ	n_estimators=100, n_jobs=1,	1
			oob_score=False, random_state=None,	
			verbose=0,	
			warm_start=False)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=100, n_jobs=1,	
80_min_updo		trade	oob_score=False, random_state=None,	0.0381205
wn	4	Z	verbose=0, warm_start=False)	51
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='sqrt',	
			max_leaf_nodes=None,	
			min samples leaf=1, min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=10, n_jobs=1,	
			oob_score=False, random_state=None,	
80 min updo		trade	verbose=0,	0.0370780
wn	15	Z	warm_start=False)	31
	13	_	RandomForestClassifier(bootstrap=True,	- 31
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			_	
00 min unda		+***	oob_score=False, random_state=None,	0.0365102
80_min_updo		trade	verbose=0,	
wn	4	Z	warm_start=False)	39
			RandomForestClassifier(bootstrap=True,	
			class_weight=None, criterion='gini',	
			max_depth=1, max_features='sqrt',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			n_estimators=30, n_jobs=1,	
			oob_score=False, random_state=None,	
80_min_updo		trade	verbose=0,	0.0364211
wn	43	Z	warm_start=False)	53
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=8, max_features='auto',	
80_min_updo		trade	max_leaf_nodes=None,	0.0363594
wn	43	Z	min_samples_leaf=1, min_samples_split=2,	17

			min_weight_fraction_leaf=0.0,	İ
			n_estimators=100, n_jobs=1,	
			oob_score=False, random_state=None,	
			verbose=0, warm_start=False)	
			ExtraTreesClassifier(bootstrap=False,	
			class_weight=None, criterion='gini',	
			max_depth=4, max_features='auto',	
			max_leaf_nodes=None,	
			min_samples_leaf=1, min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
00 min unda		+ = = = =	n_estimators=100, n_jobs=1,	0.0252406
80_min_updo	4.5	trade	oob_score=False, random_state=None,	0.0352406
wn	15	Z	verbose=0, warm_start=False)	15
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
		_	metric_params=None, n_jobs=1,	
80_min_updo		trade	n_neighbors=100, p=2,	0.0344104
wn	8	Z	weights='uniform')	4
			KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
80_min_updo		trade	n_neighbors=100, p=1,	0.0337780
wn	4	Z	weights='distance')	64
80_min_updo		trade		0.0328483
wn	8	Z	voting_soft	14
			AdaBoostClassifier(algorithm='SAMME.R',	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min samples split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
80_min_updo		trade	learning rate=1.0, n estimators=50,	0.0326750
wn	8	Z	random_state=None)	37
			AdaBoostClassifier(algorithm='SAMME.R',	
			The state of the s	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=1,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
ما ما ۱۰۰۰			min_weight_fraction_leaf=0.0, presort=False, random_state=None,	0.0316620
80_min_updo wn	15	trade Z	splitter='best'),	0.0310020

			learning_rate=1.0, n_estimators=400,	
			random_state=None)	
80_min_updo		trade		0.0316007
wn	8	Z	GaussianNB	15
			SVC(C=1, cache_size=1024, class_weight=None,	
			coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
80_min_updo		trade	random_state=None, shrinking=True,	0.0286400
wn	4	Z	tol=0.001, verbose=False)	83
80_min_updo		trade		0.0282058
wn	8	Z	voting_hard	67
			DecisionTreeClassifier(class_weight=None,	
			criterion='gini', max_depth=1,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
80 min updo		trade	presort=False, random_state=None,	0.0267999
wn	8	Z	splitter='best')	55
80_min_updo		trade		0.0264302
wn	4	Z	voting_soft	67
	-		KNeighborsClassifier(algorithm='auto',	
			leaf_size=30, metric='minkowski',	
			metric_params=None, n_jobs=1,	
80_min_updo		trade	n_neighbors=100, p=2,	0.0260077
wn	15	Z	weights='uniform')	19
80_min_updo		trade		0.0221868
wn	4	Z	voting_hard	21
	-	_	DecisionTreeClassifier(class_weight=None,	
			criterion='entropy', max_depth=28,	
			max_features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
80_min_updo		trade	presort=False, random_state=None,	0.0220647
wn	4	Z	splitter='best')	64
80_min_updo		trade	Spritter = best /	0.0219487
wn	4	Z	GaussianNB	33
80 min updo	4	trade	Guassianiva	0.0198154
wn	15	Z	voting_soft	27
WII	13		LogisticRegression(C=0.01, class_weight=None,	27
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
on min unda		trada	multi class='ovr', n jobs=1,	
80_min_updo	А	trade		0.0103617
wn	4	Z	penalty='l2', random_state=None,	0.0192617

		1	solver='liblinear', tol=0.0001,	
			verbose=0, warm_start=False)	
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	
80_min_updo		trade	solver='liblinear', tol=0.0001,	0.0179873
wn	8	Z	verbose=0, warm_start=False)	13
80_min_updo	0	trade	verbose=o, warm_start=raise;	0.0177627
wn	15	Z	GaussianNB	51
VVII	13		AdaBoostClassifier(algorithm='SAMME.R',	31
			Audboostclassifier(algoritifff= SAMME.R,	
			base_estimator=DecisionTreeClassifier(class_weig	
			ht=None, criterion='gini', max_depth=4,	
			max features=None,	
			max_leaf_nodes=None, min_samples_leaf=1,	
			min_samples_split=2,	
			min_weight_fraction_leaf=0.0,	
			presort=False, random_state=None,	
			splitter='best'),	
80_min_updo		trade	learning rate=1.0, n estimators=200,	0.0167338
wn	4	Z	random_state=None)	54
VVII	4		SVC(C=0.01, cache_size=1024,	54
			class_weight=None, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
00		4a.d.a	max_iter=-1, probability=False,	0.0455374
80_min_updo	15	trade	random_state=None, shrinking=True,	0.0155271
wn	15	Z	tol=0.001, verbose=False)	25
80_min_updo	15	trade		0.0148640
wn	15	Z	voting_hard	11
			LogisticRegression(C=0.001, class_weight=None,	
			dual=False, fit_intercept=True,	
			intercept_scaling=1, max_iter=100,	
			multi_class='ovr', n_jobs=1,	
			penalty='l2', random_state=None,	0.04.45.600
80_min_updo		trade	solver='liblinear', tol=0.0001,	0.0145688
wn	15	Z	verbose=0, warm_start=False)	29
			SVC(C=0.0001, cache_size=1024,	
			class_weight=None, coef0=0.0,	
			decision_function_shape=None, degree=3,	
			gamma='auto', kernel='rbf',	
			max_iter=-1, probability=False,	
80_min_updo		trade	random_state=None, shrinking=True,	0.0143167
wn	8	Z	tol=0.001, verbose=False)	17
1_min_cat	8		LogisticRegression(C=10.0, class_weight=None,	0.4059641

	l I	dual-Falco fit intercent-True	72
		dual=False, fit_intercept=True,	/2
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
		solver='liblinear', tol=0.0001,	
		verbose=0, warm_start=False)	
		LogisticRegression(C=1, class_weight=None,	
		dual=False, fit_intercept=True,	
		<pre>intercept_scaling=1, max_iter=100,</pre>	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
		solver='liblinear', tol=0.0001,	0.4044487
1 min cat	15	verbose=0, warm_start=False)	74
<u></u>	10	AdaBoostClassifier(algorithm='SAMME.R',	, ,
		Adaboostelassiner (algorithm = SAMMVIE.IV)	
		has actimater-DesisionTracClassificy(class wain	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		<pre>presort=False, random_state=None,</pre>	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	0.4026357
1_min_cat	15	random_state=None)	09
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.4025571
1 min cat	15	tol=0.001, verbose=False)	15
cat	15		13
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=100,	0.4024733
1_min_cat	8	random_state=None)	45
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	0.4022092
1_min_cat	8	gamma='auto', kernel='rbf',	0.4022032
cat	0	Bamma- auto, kerner- rur,	UO

		max_iter=-1, probability=False,	1
		random_state=None, shrinking=True,	
		tol=0.001, verbose=False)	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.4015532
1_min_cat	8	warm_start=False)	82
			0.4011203
1_min_cat	8	voting_hard	12
			0.4000649
1_min_cat	15	voting_hard	46
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=4,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
	_	presort=False, random_state=None,	0.3996860
1_min_cat	8	splitter='best')	96
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		<pre>oob_score=False, random_state=None, verbose=0,</pre>	0.3990637
1 min cat	15	warm_start=False)	0.3990037
1_IIIII_cat	13	DecisionTreeClassifier(class_weight=None,	01
		criterion='gini', max_depth=4,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3977106
1_min_cat	15	splitter='best')	67
			0.3974941
1_min_cat	8	voting_soft	82
		ExtraTreesClassifier(bootstrap=False,	0.3971965
1_min_cat	8	class_weight=None, criterion='gini',	15
	- 1		

	l I	max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
		n neighbors=300, p=1,	0.3960599
1 min oot	8		
1_min_cat	8	weights='distance')	66
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3958976
1_min_cat	43	warm_start=False)	02
			0.3948692
1_min_cat	15	voting_soft	97
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3943010
1_min_cat	15	verbose=0, warm_start=False)	23
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max leaf nodes=None,	
		min samples leaf=1, min samples split=2,	
		min weight fraction leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3900254
1_min_cat	43	verbose=0, warm_start=False)	37
	15	KNeighborsClassifier(algorithm='auto',	3,
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
		n_neighbors=300, p=1,	0.3899171
1 min cat	15	n_neignbors=300, p=1, weights='distance')	
1_min_cat	13	weights- distance j	94

		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
		solver='liblinear', tol=0.0001, verbose=0,	0.3897818
1_min_cat	4	warm_start=False)	91
		SVC(C=1, cache_size=1024,	
		class_weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3887278
1_min_cat	4	tol=0.001, verbose=False)	21
			0.3872652
1_min_cat	4	voting_soft	49
			0.3857769
1_min_cat	4	voting_hard	12
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3853439
1_min_cat	4	warm_start=False)	41
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	0.2041.002
1	4	learning_rate=1.0, n_estimators=50,	0.3841803
1_min_cat	4	random_state=None)	32
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	0.202222
1 min sat	_	n_neighbors=300, p=2,	0.3832873
1_min_cat	4	weights='uniform')	0.2025566
1_min_cat	4	ExtraTreesClassifier(bootstrap=False,	0.3825566

		class_weight=None, criterion='gini',	92
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3773069
1_min_cat	4	splitter='best')	22
			0.3767115
1_min_cat	8	GaussianNB	87
1_min_cat	15	GaussianNB	0.3731937
			0.3730854
1_min_cat	4	GaussianNB	58
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
1_min_high_c		random_state=None, shrinking=True,	0.9084425
at	4	tol=0.001, verbose=False)	37
		SVC(C=0.0001, cache_size=1024,	3,
		class weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	0.0004405
1_min_high_c		random_state=None, shrinking=True,	0.9084425
at	8	tol=0.001, verbose=False)	37
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
1_min_high_c		random_state=None, shrinking=True,	0.9084425
at	15	tol=0.001, verbose=False)	37
1_min_high_c			0.9006332
at	8	voting_soft	2
		LogisticRegression(C=0.01, class_weight=None,	
	1		1
1_min_high_c		dual=False, fit_intercept=True,	0.9005790

	I	multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
		solver='liblinear', tol=0.0001,	
		verbose=0, warm_start=False)	
1_min_high_c			0.9005790
at	15	voting_soft	98
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
1_min_high_c		oob_score=False, random_state=None,	0.9005520
at	15	verbose=0, warm_start=False)	38
1_min_high_c			0.9004708
at	4	voting_hard	56
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
1 min high o		oob_score=False, random_state=None,	0.0004700
1_min_high_c at	15	verbose=0,	0.9004708 56
at	13	warm_start=False) RandomForestClassifier(bootstrap=True,	30
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
1_min_high_c		verbose=0,	0.9004437
at	4	warm start=False)	95
1 min high c		<u> </u>	0.9004437
at	4	voting_soft	95
		LogisticRegression(C=0.01, class_weight=None,	
		dual=False, fit_intercept=True,	
		<pre>intercept_scaling=1, max_iter=100,</pre>	
		multi_class='ovr', n_jobs=1,	
		penalty='I2', random_state=None,	
1_min_high_c		solver='liblinear', tol=0.0001,	0.9004167
at	15	verbose=0, warm_start=False)	34
1_min_high_c	4	KNeighborsClassifier(algorithm='auto',	0.9004167

at		leaf_size=30, metric='minkowski',	34
		metric_params=None, n_jobs=1,	
		n_neighbors=100, p=1,	
		weights='uniform')	
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
1_min_high_c		n_neighbors=100, p=1,	0.9004167
at	8	weights='uniform')	34
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
1_min_high_c		n_neighbors=100, p=1,	0.9004167
at	15	weights='uniform')	34
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
1_min_high_c		presort=False, random_state=None,	0.9004167
at	4	splitter='best')	34
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
1_min_high_c		presort=False, random_state=None,	0.9004167
at	8	splitter='best')	34
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
1_min_high_c		presort=False, random_state=None,	0.9004167
at	15	splitter='best')	34
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
1_min_high_c		oob_score=False, random_state=None,	0.9004167
at	8	verbose=0,	34

		warm_start=False)	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
1_min_high_c		verbose=0,	0.9004167
at	43	warm_start=False)	34
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
1_min_high_c		oob_score=False, random_state=None,	0.9004167
at	4	verbose=0, warm_start=False)	34
a.		ExtraTreesClassifier(bootstrap=False,	3.
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
1_min_high_c		oob_score=False, random_state=None,	0.9004167
at	8	verbose=0, warm_start=False)	34
at		ExtraTreesClassifier(bootstrap=False,	34
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
1_min_high_c		oob_score=False, random_state=None,	0.9004167
	43	verbose=0, warm_start=False)	_
at	43	verbose-o, warrii_start-Faise)	0.9004167
1_min_high_c	8	voting hard	
at	0	voting_hard LogisticRegression(C=0.01, class_weight=None,	34
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
1 main hi-h -		penalty='l2', random_state=None,	0.0003806
1_min_high_c		solver='liblinear', tol=0.0001,	0.9003896
at	8	verbose=0, warm_start=False)	74

1_min_high_c			0.9003355
at	15	voting_hard	52
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min samples split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random state=None,	
		splitter='best'),	
1_min_high_c		learning_rate=1.0, n_estimators=50,	0.9001461
at	4	random_state=None)	28
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min samples split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
1_min_high_c		learning_rate=1.0, n_estimators=100,	0.8992260
at	8	random_state=None)	65
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
1_min_high_c		learning_rate=1.0, n_estimators=50,	0.8986307
at	15	random_state=None)	3
1_min_high_c	_	6	0.8852086
at	4	GaussianNB	38
1_min_high_c at	8	GaussianNB	0.8771174 97
1_min_high_c	3		0.8712994
at	15	GaussianNB	53
1 min updow			0.5234345
n .	15	voting_soft	4
1_min_updow	15	voting_hard	0.5231368

n			73
1_min_updow			0.5229203
n	8	voting_hard	88
1_min_updow			0.5223791
n	8	voting_soft	74
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
1_min_updow		random_state=None, shrinking=True,	0.5221500
n	8	tol=0.001, verbose=False)	64
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
1_min_updow		solver='liblinear', tol=0.0001, verbose=0,	0.5221085
n	8	warm_start=False)	67
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
4		oob_score=False, random_state=None,	0.5244644
1_min_updow		verbose=0,	0.5211614
n	8	warm_start=False)	44
		ExtraTreesClassifier(bootstrap=False, class weight=None, criterion='gini',	
		max depth=8, max features='auto',	
		max_depth=8, max_leatures= auto , max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n estimators=100, n jobs=1,	
1 min updow		oob_score=False, random_state=None,	0.5208637
n	4	verbose=0, warm_start=False)	77
••	1	LogisticRegression(C=0.001, class weight=None,	.,,
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
1_min_updow		solver='liblinear', tol=0.0001,	0.5208096
n	4	verbose=0, warm_start=False)	55
1 min updow	4	GaussianNB	0.5206202
	<u> </u>		5.5-55-52

n			31
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
1_min_updow		solver='liblinear', tol=0.0001, verbose=0,	0.5202413
n	15	warm_start=False)	81
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
1_min_updow		oob_score=False, random_state=None,	0.5198895
n	15	verbose=0, warm_start=False)	92
		Random Forest Classifier (bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=2, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
1_min_updow		verbose=0,	0.5197272
n	4	warm_start=False)	28
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=2, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
1_min_updow		verbose=0,	0.5196731
n	15	warm_start=False)	07
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
1_min_updow		oob_score=False, random_state=None,	0.5194566
n	8	verbose=0, warm_start=False)	22

n 4 voting_hard KNeighborsClassifier(algorithm='auto',	70
	79
leaf stee 20 metals betals well to	
leaf_size=30, metric='minkowski',	
metric_params=None, n_jobs=1,	
1_min_updow n_neighbors=300, p=2,	0.5192130
n 4 weights='distance')	76
RandomForestClassifier(bootstrap=True,	
class_weight=None, criterion='gini',	
max_depth=2, max_features='sqrt',	
max_leaf_nodes=None,	
min_samples_leaf=1, min_samples_spl	it=2,
min_weight_fraction_leaf=0.0,	
n_estimators=100, n_jobs=1,	
oob_score=False, random_state=None,	,
1_min_updow verbose=0,	0.5186177
n 43 warm_start=False)	41
KNeighborsClassifier(algorithm='auto',	
leaf_size=30, metric='minkowski',	
metric_params=None, n_jobs=1,	
1_min_updow n_neighbors=300, p=1,	0.5182388
n 15 weights='distance')	92
SVC(C=1, cache_size=1024, class_weight=Non	e,
coef0=0.0,	
decision_function_shape=None, degree=3,	
gamma='auto', kernel='rbf',	
max_iter=-1, probability=False,	
1_min_updow random_state=None, shrinking=True,	0.5182071
n 15 tol=0.001, verbose=False)	2
DecisionTreeClassifier(class_weight=None,	
criterion='gini', max_depth=7,	
max_features=None,	
max_leaf_nodes=None, min_samples_leaf=1,	
min_samples_split=2,	
min_weight_fraction_leaf=0.0,	
1_min_updow presort=False, random_state=None,	0.5181306
n 4 splitter='best')	49
1_min_updow	0.5179953
n 8 GaussianNB	46
KNeighborsClassifier(algorithm='auto',	
leaf_size=30, metric='minkowski',	
metric_params=None, n_jobs=1,	
1_min_updow n_neighbors=300, p=2,	0.5178600
n 8 weights='distance')	42
1_min_updow	0.5178329
n 15 GaussianNB	82
1_min_updow 4 SVC(C=1, cache_size=1024, class_weight=Non	e, 0.5178012

n		coef0=0.0,	29
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max iter=-1, probability=False,	
		random_state=None, shrinking=True,	
		tol=0.001, verbose=False)	
1_min_updow		toi=0.001, verbose=1 disej	0.5175894
nn	4	voting_soft	36
	4	DecisionTreeClassifier(class_weight=None,	30
		criterion='gini', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
1_min_updow		presort=False, random_state=None,	0.5164799
n	15	splitter='best')	48
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
1_min_updow		oob_score=False, random_state=None,	0.5163175
n	43	verbose=0, warm_start=False)	84
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=4,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min samples split=2,	
		min_weight_fraction_leaf=0.0,	
1_min_updow		presort=False, random state=None,	0.5161281
n	8	splitter='best')	59
		AdaBoostClassifier(algorithm='SAMME.R',	
		,	
		base estimator=DecisionTreeClassifier(class weig	
		ht=None, criterion='gini', max_depth=1,	
		max features=None,	
		max leaf nodes=None, min samples leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
1 min undou			0.5156681
1_min_updow	4	learning_rate=1.0, n_estimators=50,	
n 1 min undaw	4	random_state=None)	28
1_min_updow		AdaBoostClassifier(algorithm='SAMME.R',	0.5153975
n	8		21

i	ı	hase actimater-DesirionTreeClassifier/class weig	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		<pre>presort=False, random_state=None,</pre>	
		splitter='best'),	
		learning_rate=1.0, n_estimators=100,	
		random_state=None)	
		AdaBoostClassifier(algorithm='SAMME.R',	
		,	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
1_min_updow		learning_rate=1.0, n_estimators=50,	0.5132597
n	15	random_state=None)	28
		LogisticRegression(C=0.01, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
		solver='liblinear', tol=0.0001,	0.3987389
10_min_cat	15	verbose=0, warm_start=False)	73
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random state=None,	
		solver='liblinear', tol=0.0001,	0.3965741
10_min_cat	8	verbose=0, warm_start=False)	19
10_11111_cat	3	RandomForestClassifier(bootstrap=True,	13
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_deptil=o, max_leatures= sqrt , max leaf nodes=None,	
		·	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3952481
10_min_cat	15	warm_start=False)	46
			0.3949504
10_min_cat	15	voting_hard	79

		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	0.3947069
10_min_cat	8	random_state=None)	33
		SVC(C=0.01, cache_size=1024,	
		class_weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	0.2020406
10	4.5	random_state=None, shrinking=True,	0.3930186
_10_min_cat	15	tol=0.001, verbose=False)	71
		SVC(C=0.01, cache_size=1024,	
		class_weight='balanced', coef0=0.0, decision function shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3924968
10_min_cat	8	tol=0.001, verbose=False)	11
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	0.3924879
10_min_cat	15	random_state=None)	58
	_		0.3913514
10_min_cat	8	voting_hard	1
10_min_cat	15	voting_soft	0.3904313 47
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	0.3900795
10_min_cat	43	min_samples_leaf=1, min_samples_split=2,	58

]	l l	min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	
		warm_start=False)	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.2005442
		verbose=0,	0.3895112
10_min_cat	8	warm_start=False)	84
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3886724
10_min_cat	15	verbose=0, warm_start=False)	04
			0.3885100
10_min_cat	8	voting_soft	4
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=5,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3862098
10_min_cat	8	splitter='best')	83
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3853168
10_min_cat	8	verbose=0, warm_start=False)	8
_		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	0.3852627
1		<u> </u>	
		leaf_size=30, metric='minkowski', metric_params=None, n_jobs=1,	0.3852627
10_min_cat	15	n_neighbors=300, p=1,	59

		weights='distance')	
		SVC(C=1, cache_size=1024,	
		class_weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3844079
10_min_cat	4	tol=0.001, verbose=False)	79
		DecisionTreeClassifier(class weight=None,	
		criterion='gini', max_depth=4,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3834496
10_min_cat	15	splitter='best')	94
		KNeighborsClassifier(algorithm='auto',	
		leaf size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
		n neighbors=300, p=1,	0.3827190
10_min_cat	8	weights='uniform')	56
cat		LogisticRegression(C=0.0001, class weight=None,	30
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
		solver='liblinear', tol=0.0001, verbose=0,	0.3808518
10_min_cat	4	warm_start=False)	0.3606316
10_IIIII_cat	4	ExtraTreesClassifier(bootstrap=False,	,
		class_weight=None, criterion='gini',	
		max_depth=64, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2, min weight fraction leaf=0.0,	
		n estimators=100, n jobs=1,	
			0.3802835
10 min oot	42	oob_score=False, random_state=None,	
10_min_cat	43	verbose=0, warm_start=False)	96
10_min_cat	4	voting_soft	0.3787681 98
10_iiiii_cat	4	RandomForestClassifier(bootstrap=True,	90
		·	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	0.2770404
10 main+		min_weight_fraction_leaf=0.0,	0.3778481
10_min_cat	4	n_estimators=30, n_jobs=1,	36

		oob_score=False, random_state=None,	
		verbose=0,	
		warm_start=False)	
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=4,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3771986
10_min_cat	4	splitter='best')	79
			0.3767927
10_min_cat	4	voting_hard	69
	_		0.3733560
10_min_cat	8	GaussianNB	64
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	0.3731666
10_min_cat	4	verbose=0, warm_start=False)	4
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	0.3729230
10_min_cat	4	random_state=None)	94
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
		n_neighbors=300, p=1,	0.3705958
10_min_cat	4	weights='uniform')	76
			0.3697840
10_min_cat	15	GaussianNB	56
	T		0.3680521
10_min_cat	4	GaussianNB	73
10_min_high_		SVC(C=1, cache_size=1024, class_weight=None,	0.9072538
cat	8	coef0=0.0,	56

	1	decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random state=None, shrinking=True,	
		tol=0.001, verbose=False)	
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
10_min_high_		random_state=None, shrinking=True,	0.9071668
cat	4	tol=0.001, verbose=False)	79
Cat	•	SVC(C=0.0001, cache_size=1024,	, ,
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
10_min_high_		random_state=None, shrinking=True,	0.9071088
cat	15	tol=0.001, verbose=False)	95
cat	15	RandomForestClassifier(bootstrap=True,	95
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
10 min high		oob_score=False, random_state=None,	0.0007055
10_min_high_	0	verbose=0,	0.9007955
cat	8	warm_start=False)	84
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
10_min_high_		oob_score=False, random_state=None,	0.9007414
cat	4	verbose=0, warm_start=False)	62
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
10_min_high_		oob_score=False, random_state=None,	0.9007414
cat	15	verbose=0, warm_start=False)	62

I	I	RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
10_min_high_		verbose=0,	0.9007144
cat	4	warm_start=False)	02
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
10_min_high_		oob_score=False, random_state=None,	0.9007144
cat	8	verbose=0, warm_start=False)	02
10_min_high_			0.9007144
cat	8	voting_soft	02
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
10_min_high_		verbose=0,	0.9006873
cat	15	warm_start=False)	41
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
10_min_high_		verbose=0,	0.9006873
cat	43	warm_start=False)	41
10_min_high_			0.9006873
cat	4	voting_soft	41
10_min_high_	4.5	wating hand	0.9006873
cat	15	voting_hard	41
10_min_high_		KNeighborsClassifier(algorithm='auto',	0.9006602
cat	4	leaf_size=30, metric='minkowski',	8

		metric_params=None, n_jobs=1,	
		n_neighbors=100, p=1,	
		weights='uniform')	
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
10_min_high_		n_neighbors=100, p=1,	0.9006602
cat	8	weights='uniform')	8
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
10_min_high_		n_neighbors=25, p=1,	0.9006602
cat	15	weights='uniform')	8
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
10		min_weight_fraction_leaf=0.0,	0.0000003
10_min_high_	4	presort=False, random_state=None,	0.9006602
cat	4	splitter='best') DecisionTreeClassifier(class weight=None,	8
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
10_min_high_		presort=False, random_state=None,	0.9006602
cat	8	splitter='best')	8
		DecisionTreeClassifier(class_weight=None,	
		<pre>criterion='gini', max_depth=1,</pre>	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
10_min_high_		presort=False, random_state=None,	0.9006602
cat	15	splitter='best')	8
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
10 min high		n_estimators=10, n_jobs=1,	0.0006603
10_min_high_	43	oob_score=False, random_state=None, verbose=0, warm_start=False)	0.9006602
cat			0.0006603
10_min_high_	4	AdaBoostClassifier(algorithm='SAMME.R',	0.9006602

cat]		8
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		_	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	
40 ' 1' 1		random_state=None)	0.0005502
10_min_high_	_		0.9006602
cat	4	voting_hard	8
10_min_high_			0.9006602
cat	8	voting_hard	8
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		<pre>intercept_scaling=1, max_iter=100,</pre>	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random state=None,	
10_min_high_		solver='liblinear', tol=0.0001,	0.9006332
cat	15	verbose=0, warm_start=False)	2
10_min_high_			0.9006061
cat	15	voting_soft	59
	13	LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		_	
10 min high		penalty='l2', random_state=None,	0.0005700
10_min_high_		solver='liblinear', tol=0.0001,	0.9005790
cat	4	verbose=0, warm_start=False)	98
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
10_min_high_		solver='liblinear', tol=0.0001,	0.9004708
cat	8	verbose=0, warm_start=False)	56
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
10_min_high_		min_weight_fraction_leaf=0.0,	0.9003896
cat	8	presort=False, random_state=None,	74
	U	present in disc, random_state=None,	74

1		splitter='best'),	ı
		learning_rate=1.0, n_estimators=50,	
		random_state=None)	
		AdaBoostClassifier(algorithm='SAMME.R',	
		Adaboostclassifier (algorithm = SAIVIIVIE.K ,	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1, max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
40		splitter='best'),	0.0000004
10_min_high_	4.5	learning_rate=1.0, n_estimators=50,	0.8988201
cat	15	random_state=None)	55
10_min_high_		C · ND	0.8868052
cat	4	GaussianNB	17
10_min_high_			0.8789846
cat	8	GaussianNB	84
10_min_high_	4-		0.8724901
cat	15	GaussianNB	23
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
10_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5270606
wn	8	warm_start=False)	7
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
10_min_updo		random_state=None, shrinking=True,	0.5268178
wn	4	tol=0.001, verbose=False)	13
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=2, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
10_min_updo		verbose=0,	0.5264653
wn	15	warm_start=False)	35
10_min_updo	4	AdaBoostClassifier(algorithm='SAMME.R',	0.5261947

wn			29
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random state=None,	
		splitter='best'),	
		learning rate=1.0, n estimators=50,	
		random_state=None)	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
10		oob_score=False, random_state=None,	0.5264676
10_min_updo		verbose=0,	0.5261676
wn	4	warm_start=False)	68
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
10_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5257617
wn	15	warm_start=False)	58
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=5,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
10_min_updo		presort=False, random_state=None,	0.5254640
wn	8	splitter='best')	9
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		<pre>fit_intercept=True, intercept_scaling=1,</pre>	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
10_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5253829
wn	4	warm_start=False)	08
		ExtraTreesClassifier(bootstrap=False,	
10_min_updo		class_weight=None, criterion='gini',	0.5252205
wn	4	max_depth=8, max_features='auto',	44

		max_leaf_nodes=None,	İ
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob score=False, random state=None,	
		verbose=0, warm_start=False)	
10 : 1		verbose-o, warri_start-raise)	0.5240446
10_min_updo		CouncierAID	0.5248146
wn	8	GaussianNB	34
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
10_min_updo		presort=False, random_state=None,	0.5244899
wn	4	splitter='best')	06
		DecisionTreeClassifier(class weight=None,	
		criterion='gini', max_depth=1,	
		max features=None,	
		max leaf nodes=None, min samples leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
10_min_updo		presort=False, random_state=None,	0.5244899
wn	15	splitter='best')	06
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min weight fraction leaf=0.0,	
		n estimators=100, n jobs=1,	
		oob_score=False, random_state=None,	
10_min_updo		verbose=0,	0.5239757
wn	8	warm_start=False)	54
	0	waitii_start=raise;	
10_min_updo	A	voting hard	0.5234616
wn	4	voting_hard	01
10_min_updo			0.5233262
wn	15	voting_hard	98
10_min_updo			0.5228662
wn	15	GaussianNB	66
10_min_updo			0.5225144
wn	15	voting_soft	77
10_min_updo			0.5213508
wn	4	GaussianNB	69
		AdaBoostClassifier(algorithm='SAMME.R',	
10_min_updo		, , , , , , , , , , , , , , , , , , , ,	0.5213508
wn	8	base_estimator=DecisionTreeClassifier(class_weig	69
AAII		base_estimator=becasion reeclassiner(class_welg	03

1		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	
		random_state=None)	
		AdaBoostClassifier(algorithm='SAMME.R',	
		,	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
10_min_updo		learning rate=1.0, n estimators=50,	0.5212967
wn	15	random_state=None)	47
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
10_min_updo		n_neighbors=300, p=1,	0.5212426
wn	4	weights='distance')	26
10_min_updo			0.5211073
wn	8	voting_hard	23
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
10_min_updo		verbose=0,	0.5210802
wn	43	warm_start=False)	62
10_min_updo			0.5210802
wn	4	voting_soft	62
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
10_min_updo		min_weight_fraction_leaf=0.0,	0.5202684
wn	8	n_estimators=30, n_jobs=1,	42

		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
10_min_updo			0.5199166
wn	8	voting_soft	53
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
10_min_updo		n_neighbors=100, p=1,	0.5174541
wn	15	weights='distance')	32
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
10_min_updo		oob_score=False, random_state=None,	0.5173188
wn	15	verbose=0, warm_start=False)	29
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
10_min_updo		oob_score=False, random_state=None,	0.5150727
wn	43	verbose=0, warm_start=False)	93
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
10_min_updo		n_neighbors=300, p=2,	0.5136115
wn	8	weights='uniform')	17
		SVC(C=0.01, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
10_min_updo		random_state=None, shrinking=True,	0.5135683
wn	8	tol=0.001, verbose=False)	64
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
10_min_updo		random_state=None, shrinking=True,	0.5095674
wn	15	tol=0.001, verbose=False)	36
20_min_cat	15	LogisticRegression(C=0.0001, class_weight=None,	0.3884559

Í		dual Calaa	40
		dual=False,	18
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
		solver='liblinear', tol=0.0001, verbose=0,	
		warm_start=False)	
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
		solver='liblinear', tol=0.0001, verbose=0,	0.3867510
20_min_cat	8	warm_start=False)	96
			0.3852627
20_min_cat	15	voting_hard	59
		AdaBoostClassifier(algorithm='SAMME.R',	
		,	
		base estimator=DecisionTreeClassifier(class weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=400,	0.3849921
20 min sat	15	_	
20_min_cat	15	random_state=None)	52
20 min oot	15	voting coft	0.3848027
20_min_cat	15	voting_soft	28
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3847486
20_min_cat	15	warm_start=False)	06
			0.3847486
20_min_cat	8	voting_soft	06
		SVC(C=1, cache_size=1024,	
		class_weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	0.3843210
20_min_cat	8	gamma='auto', kernel='rbf',	02
		10	-

	l l	max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	
		tol=0.001, verbose=False)	
		·	0.3837473
20_min_cat	8	voting_hard	62
		SVC(C=1, cache_size=1024,	
		class_weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3827264
20_min_cat	15	tol=0.001, verbose=False)	29
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None, verbose=0,	0.3810954
20_min_cat	43	warm_start=False)	16
20_IIIII_cat	43	ExtraTreesClassifier(bootstrap=False,	10
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3799859
20_min_cat	15	verbose=0, warm_start=False)	28
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
20		learning_rate=1.0, n_estimators=100,	0.3792823
20_min_cat	8	random_state=None)	51
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	0.2776057
20 min sat		max_depth=8, max_features='sqrt',	0.3776857
20_min_cat	8	max_leaf_nodes=None,	72

	I	min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	
		warm_start=False)	
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=64, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3774151
20_min_cat	43	verbose=0, warm_start=False)	65
	-	SVC(C=1, cache_size=1024,	
		class weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3761162
20 min cat	4	tol=0.001, verbose=False)	01
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=4,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3753585
20_min_cat	8	splitter='best')	54
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=7,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3746820
20_min_cat	15	splitter='best')	37
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3742490
20_min_cat	8	verbose=0, warm_start=False)	66

1	1	VNIaishbaraClassifian/alasnithma lautal	I I
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	0 2700747
20 min oot	8	n_neighbors=300, p=1,	0.3709747
20_min_cat	8	weights='distance')	25
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	0.2702440
20	45	n_neighbors=300, p=2,	0.3702440
20_min_cat	15	weights='distance')	87
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.0700076
20	4	verbose=0,	0.3700276
20_min_cat	4	warm_start=False)	02
20		CoursianND	0.3694322
20_min_cat	8	GaussianNB	67
			0.3687286
20_min_cat	4	voting_soft	9
			0.3682686
20_min_cat	4	voting_hard	58
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	0.0670460
		solver='liblinear', tol=0.0001, verbose=0,	0.3679168
20_min_cat	4	warm_start=False)	7
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=4,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
	_	presort=False, random_state=None,	0.3645072
20_min_cat	4	splitter='best')	25
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
		n_neighbors=300, p=1,	0.3635601
20_min_cat	4	weights='distance')	02

		1	0.3630730
20_min_cat	4	GaussianNB	1
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3628294
20_min_cat	4	verbose=0, warm_start=False)	64
			0.3626129
20_min_cat	15	GaussianNB	78
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=2,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random state=None,	
		splitter='best'),	
			0.3618552
20_min_cat	4	learning_rate=1.0, n_estimators=200, random_state=None)	0.3016332
20_IIIII_cat	4	SVC(C=0.0001, cache_size=1024,	0
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
20_min_high_		random_state=None, shrinking=True,	0.9097471
cat	4	tol=0.001, verbose=False)	88
cat	4	SVC(C=0.0001, verbose=1 arse)	88
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max iter=-1, probability=False,	
20 min high		random state=None, shrinking=True,	0.9097471
20_min_high_	8		
cat	0	tol=0.001, verbose=False)	88
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
20 main hi-l-		max_iter=-1, probability=False,	0.0007474
20_min_high_	4.5	random_state=None, shrinking=True,	0.9097471
cat	15	tol=0.001, verbose=False)	88
20_min_high_	4	voting_hard	0.9026898

cat			31
20_min_high_			0.9026898
cat	8	voting_hard	31
20_min_high_			0.9026898
cat	15	voting_hard	31
cat	15	KNeighborsClassifier(algorithm='auto',	31
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
20_min_high_		n neighbors=100, p=1,	0.9026898
	4		
cat	4	weights='uniform')	31
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
20_min_high_		n_neighbors=100, p=1,	0.9026898
cat	8	weights='uniform')	31
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
20_min_high_		n_neighbors=100, p=1,	0.9026898
cat	15	weights='uniform')	31
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
20_min_high_		presort=False, random_state=None,	0.9026898
cat	4	splitter='best')	31
cat	- T	DecisionTreeClassifier(class_weight=None,	31
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
20 main hi-l-		min_weight_fraction_leaf=0.0,	0.0026000
20_min_high_		presort=False, random_state=None,	0.9026898
cat	8	splitter='best')	31
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
20_min_high_		presort=False, random_state=None,	0.9026898
cat	15	splitter='best')	31
		RandomForestClassifier(bootstrap=True,	
1	ı		1
20_min_high_		class_weight=None, criterion='gini',	0.9026898

		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	
		·	
		warm_start=False) RandomForestClassifier(bootstrap=True,	
		· · · · · · · · · · · · · · · · · · ·	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
20_min_high_		verbose=0,	0.9026898
cat	8	warm_start=False)	31
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
20_min_high_		verbose=0,	0.9026898
cat	15	warm_start=False)	31
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n estimators=10, n jobs=1,	
		oob_score=False, random_state=None,	
20_min_high_		verbose=0,	0.9026898
cat	43	warm_start=False)	31
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max depth=1, max features='auto',	
		max_leaf_nodes=None,	
		min samples leaf=1, min samples split=2,	
		min_weight_fraction_leaf=0.0,	
		n estimators=10, n jobs=1,	
20_min_high_		oob_score=False, random_state=None,	0.9026898
cat	4	verbose=0, warm_start=False)	31
	+	ExtraTreesClassifier(bootstrap=False,	0.9026898
20_min_high_			
cat	8	class_weight=None, criterion='gini',	31

		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max depth=1, max features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
20_min_high_		oob_score=False, random_state=None,	0.9026898
cat	15	verbose=0, warm start=False)	31
- 5- 5		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min weight fraction leaf=0.0,	
		n_estimators=10, n_jobs=1,	
20_min_high_		oob_score=False, random_state=None,	0.9026898
cat	43	verbose=0, warm_start=False)	31
		AdaBoostClassifier(algorithm='SAMME.R',	
		,	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
20_min_high_		learning_rate=1.0, n_estimators=50,	0.9026627
cat	4	random_state=None)	7
20_min_high_			0.9026627
cat	4	voting_soft	7
20_min_high_			0.9026627
cat	8	voting_soft	7
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		muiti_class= ovi , ii_jobs=1,	
20_min_high_	15	penalty='l2', random_state=None, solver='liblinear', tol=0.0001,	0.9025545

		verbose=0, warm_start=False)	
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
20_min_high_		solver='liblinear', tol=0.0001,	0.9025274
cat	4	verbose=0, warm_start=False)	67
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
20_min_high_		solver='liblinear', tol=0.0001,	0.9025004
cat	8	verbose=0, warm_start=False)	06
20_min_high_			0.9023921
cat	15	voting_soft	63
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
20_min_high_	_	learning_rate=1.0, n_estimators=50,	0.9010661
cat	8	random_state=None)	9
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
20_min_high_		learning_rate=1.0, n_estimators=50,	0.9000378
cat	15	random state=None)	85
20_min_high_	15	randon_state none;	0.8906478
cat	4	GaussianNB	32
20_min_high_	•		0.8840450
cat	8	GaussianNB	29
20_min_high_	-		0.8766304
cat	15	GaussianNB	05

I		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
20_min_updo		random_state=None, shrinking=True,	0.5218601
wn	4	tol=0.001, verbose=False)	41
20_min_updo		(0.001) (0.001)	0.5206472
wn	4	voting_soft	91
****		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
20_min_updo	_	verbose=0,	0.5190507
wn	4	warm_start=False)	12
20_min_updo			0.5189154
wn	4	voting_hard	08
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
20_min_updo		n_neighbors=300, p=2,	0.5185636
wn	4	weights='uniform')	2
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=7,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min weight fraction leaf=0.0,	
20_min_updo		presort=False, random state=None,	0.5181847
wn	4	splitter='best')	7
20 min updo		i i	0.5176435
wn	8	GaussianNB	57
20_min_updo			0.5172376
wn	15	GaussianNB	47
1	13	ExtraTreesClassifier(bootstrap=False,	.,
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
20 mailin		n_estimators=100, n_jobs=1,	0.5467334
20_min_updo		oob_score=False, random_state=None,	0.5167234
wn	4	verbose=0, warm_start=False)	94

		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
20_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5161552
wn	4	warm_start=False)	2
20_min_updo			0.5153704
wn	4	GaussianNB	61
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2', random_state=None,	
20_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5148833
wn	8	warm_start=False)	69
		LogisticRegression(C=0.0001, class weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
20_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5144503
wn	15	warm_start=False)	98
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=2, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0,	
		n estimators=10, n jobs=1,	
		oob_score=False, random_state=None,	
20_min_updo		verbose=0,	0.5142339
wn	8	warm_start=False)	12
		DecisionTreeClassifier(class weight=None,	
		criterion='entropy', max_depth=10,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
20_min_updo		presort=False, random_state=None,	0.5139091
wn	15	splitter='best')	84
		RandomForestClassifier(bootstrap=True,	
20_min_updo		class_weight=None, criterion='gini',	0.5136385
wn	43	max_depth=16, max_features='sqrt',	78

		max_leaf_nodes=None,	I
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		<u> </u>	
		oob_score=False, random_state=None,	
		verbose=0,	
		warm_start=False)	
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		_ , _ ,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
20		splitter='best'),	0.5424762
20_min_updo	_	learning_rate=1.0, n_estimators=100,	0.5134762
wn	4	random_state=None)	14
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=32, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
20_min_updo		oob_score=False, random_state=None,	0.5127455
wn	43	verbose=0, warm_start=False)	76
20_min_updo			0.5125832
wn	15	voting_hard	12
20_min_updo			0.5122314
wn	8	voting_hard	23
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n estimators=10, n jobs=1,	
		oob_score=False, random_state=None,	
20_min_updo		verbose=0,	0.5114196
wn	15	warm_start=False)	0.3114130
	13	DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
20 min unda			0.5105807
20_min_updo	8	max_leaf_nodes=None, min_samples_leaf=1,	
wn	ا ٥	min_samples_split=2,	22

		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best')	
		SVC(C=0.01, cache size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
20_min_updo		random_state=None, shrinking=True,	0.5105531
wn	8	tol=0.001, verbose=False)	72
20_min_updo			0.5104995
wn	15	voting_soft	4
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
20_min_updo		learning_rate=1.0, n_estimators=100,	0.5087405
wn	8	random_state=None)	96
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
20 min		n_estimators=100, n_jobs=1,	0.5000504
20_min_updo	0	oob_score=False, random_state=None,	0.5086594
wn	8	verbose=0, warm_start=False)	14
		ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min samples leaf=1, min samples split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
20_min_updo		oob_score=False, random_state=None,	0.5084158
wn	15	verbose=0, warm_start=False)	68
20_min_updo			0.5080911
wn	8	voting_soft	4
		SVC(C=0.01, cache_size=1024,	
20_min_updo		class_weight=None, coef0=0.0,	0.5065522
1		decision_function_shape=None, degree=3,	

1		gamma='auto', kernel='rbf',	
		max iter=-1, probability=False,	
		random_state=None, shrinking=True,	
		tol=0.001, verbose=False)	
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
20_min_updo	45	learning_rate=1.0, n_estimators=200,	0.5057639
wn	15	random_state=None)	23
		KNeighborsClassifier(algorithm='auto', leaf size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
20_min_updo		n_neighbors=5, p=2,	0.5047897
wn	8	weights='uniform')	39
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
20_min_updo		n_neighbors=100, p=2,	0.5025437
wn	15	weights='uniform')	03
		LogisticRegression(C=1, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	0.2055.004
40 min cat	15	solver='liblinear', tol=0.0001,	0.3855604
40_111111_cat	13	verbose=0, warm_start=False) SVC(C=0.01, cache_size=1024,	26
		class_weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3842340
40_min_cat	8	tol=0.001, verbose=False)	25
			0.3816095
40_min_cat	15	voting_hard	69
			0.3815825
40_min_cat	15	voting_soft	08
		SVC(C=1, cache_size=1024,	
40		class_weight='balanced', coef0=0.0,	0.3804650
40_min_cat	15	decision_function_shape=None, degree=3,	35

	l I	gamma='auto', kernel='rbf',	ĺ
		max iter=-1, probability=False,	
		random state=None, shrinking=True,	
		tol=0.001, verbose=False)	
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi class='ovr', n jobs=1,	
		penalty='l2', random_state=None,	
		solver='liblinear', tol=0.0001,	0.3803106
40_min_cat	8	verbose=0, warm_start=False)	56
40_111111_cat	8	verbose-o, warrii_start-raisej	0.3799588
40 min cat	8	voting coft	68
40_min_cat	٥	voting_soft	00
		AdaBoostClassifier(algorithm='SAMME.R',	
		hase astimator-Decision-Translassificat/along wait	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=100,	0.3798776
40_min_cat	15	random_state=None)	86
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3798235
40_min_cat	43	warm_start=False)	64
			0.3786599
40_min_cat	8	voting_hard	56
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3781458
40_min_cat	15	warm_start=False)	03

		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max leaf nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3770363
40_min_cat	8	warm_start=False)	15
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=7,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3764139
40_min_cat	8	splitter='best')	2
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=4,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3749797
40_min_cat	15	splitter='best')	0.37 43737
	10	SVC(C=1, cache_size=1024,	
		class_weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max iter=-1, probability=False,	
		,	0.3744056
40		random_state=None, shrinking=True,	0.3744056
40_min_cat	4	tol=0.001, verbose=False)	59
		AdaBoostClassifier(algorithm='SAMME.R',	
		hasa astimatar-DanisianTraeClassifiar/alass wais	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	0.3740055
40_min_cat	8	random_state=None)	2
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	0.3734101
40_min_cat	8	metric_params=None, n_jobs=1,	86

		n_neighbors=300, p=2,	
		weights='distance')	
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	0.3730583
40_min_cat	8	verbose=0, warm_start=False)	97
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3727877
40_min_cat	43	verbose=0, warm_start=False)	9
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3723548
40_min_cat	15	verbose=0, warm_start=False)	2
			0.3718406
40_min_cat	8	GaussianNB	67
	1-		0.3676462
40_min_cat	15	GaussianNB	63
			0.3671050
40_min_cat	4	GaussianNB	5
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	0.200000
40	4.5	n_neighbors=300, p=2,	0.3669968
40_min_cat	15	weights='uniform')	07
40 min		veting hard	0.3638848
40_min_cat	4	voting_hard	3
40 min		veting coft	0.3628835
40_min_cat	4	voting_soft	85
		LogisticRegression(C=0.0001, class_weight=None,	0.2626400
40 min		dual=False,	0.3626400
40_min_cat	4	fit_intercept=True, intercept_scaling=1,	39

	İ	max_iter=100,	1
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
		solver='liblinear', tol=0.0001, verbose=0,	
		warm_start=False)	
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=3, max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min samples split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3602045
40_min_cat	4	splitter='best')	79
40_111111_cat	4	KNeighborsClassifier(algorithm='auto',	73
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1, n_neighbors=300, p=2,	0.3596363
40_min_cat	4	weights='distance')	0.5590505
40_111111_cat	4	ExtraTreesClassifier(bootstrap=False,	03
		class weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3569031
40 min cat	4	verbose=0, warm_start=False)	77
40_11111_cat	-	RandomForestClassifier(bootstrap=True,	,,,
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3557936
40 min cat	4	warm start=False)	89
		AdaBoostClassifier(algorithm='SAMME.R',	
		(3.001.001.001.001.001.001.001.001.001.00	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=2,	
		max_features=None,	
		max leaf nodes=None, min samples leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
l I		splitter='best'),	0.3520593

		random_state=None)	
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
40_min_high_		random_state=None, shrinking=True,	0.9104430
cat	4	tol=0.001, verbose=False)	01
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
40_min_high_		random_state=None, shrinking=True,	0.9104430
cat	8	tol=0.001, verbose=False)	01
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
40_min_high_		random_state=None, shrinking=True,	0.9104430
cat	15	tol=0.001, verbose=False)	01
40_min_high_			0.9038263
cat	8	voting_hard	79
40_min_high_			0.9038263
cat	15	voting_hard	79
		LogisticRegression(C=0.01, class_weight=None,	
		dual=False, fit_intercept=True,	
		<pre>intercept_scaling=1, max_iter=100,</pre>	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
40_min_high_		solver='liblinear', tol=0.0001,	0.9038263
cat	15	verbose=0, warm_start=False)	79
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
40_min_high_	_	n_neighbors=100, p=1,	0.9038263
cat	4	weights='uniform')	79
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
40		metric_params=None, n_jobs=1,	0.000000
40_min_high_		n_neighbors=100, p=1,	0.9038263
cat	8	weights='uniform')	79
		KNeighborsClassifier(algorithm='auto',	
40		leaf_size=30, metric='minkowski',	0.000000
40_min_high_		metric_params=None, n_jobs=1,	0.9038263
cat	15	n_neighbors=100, p=1,	79

		weights='uniform')	
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
40_min_high_		presort=False, random_state=None,	0.9038263
cat	4	splitter='best')	79
Cat	'	DecisionTreeClassifier(class weight=None,	, 3
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
40 min high			0.9038263
40_min_high_	0	presort=False, random_state=None,	
cat	8	splitter='best')	79
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
40_min_high_		presort=False, random_state=None,	0.9038263
cat	15	splitter='best')	79
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
40_min_high_		verbose=0,	0.9038263
cat	4	warm_start=False)	79
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
40_min_high_		verbose=0,	0.9038263
cat	8	warm_start=False)	79
40_min_high_		RandomForestClassifier(bootstrap=True,	0.9038263
cat	15	class_weight=None, criterion='gini',	79
cat	1.0	Glass_weight=reone, chechon= gill,	, ,

		max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	
		warm_start=False)	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max depth=1, max features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
40 min high		<pre>oob_score=False, random_state=None, verbose=0,</pre>	0.9038263
40_min_high_	43		79
cat	43	warm_start=False)	79
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
40_min_high_	_	oob_score=False, random_state=None,	0.9038263
cat	4	verbose=0, warm_start=False)	79
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
40_min_high_		oob_score=False, random_state=None,	0.9038263
cat	8	verbose=0, warm_start=False)	79
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
40_min_high_		oob_score=False, random_state=None,	0.9038263
cat	15	verbose=0, warm_start=False)	79
		ExtraTreesClassifier(bootstrap=False,	
40_min_high_		class_weight=None, criterion='gini',	0.9038263
cat	43	max_depth=1, max_features='auto',	79

		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
40_min_high_		, = ,	0.9038263
cat	4	voting_soft	79
40_min_high_		<u> </u>	0.9037993
cat	8	voting_soft	18
40_min_high_			0.9037722
cat	15	voting_soft	57
40_min_high_			0.9037722
cat	4	voting_hard	57
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='I2', random_state=None,	
40_min_high_		solver='liblinear', tol=0.0001,	0.9037181
cat	4	verbose=0, warm_start=False)	36
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
40_min_high_		solver='liblinear', tol=0.0001,	0.9036369
cat	8	verbose=0, warm_start=False)	54
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None, max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random state=None,	
		splitter='best'),	
40_min_high_		learning rate=1.0, n estimators=50,	0.9027710
cat	4	random_state=None)	13
	7	AdaBoostClassifier(algorithm='SAMME.R',	13
		Addboosteldssiller (digolitilliti - salvilvie.it)	
		base estimator=DecisionTreeClassifier(class weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
40_min_high_		max_leaf_nodes=None, min_samples_leaf=1,	0.9022568
cat	15	min_samples_split=2,	6
	13	cap.co_op.ic 2,	<u> </u>

1		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	
		random state=None)	
		AdaBoostClassifier(algorithm='SAMME.R',	
		Adaboostclassifici (algoritifii = SAIVIVIL.IX ,	
		base estimator=DecisionTreeClassifier(class weig	
		ht=None, criterion='gini', max_depth=1,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
40_min_high_		learning_rate=1.0, n_estimators=50,	0.9021756
cat	8	random_state=None)	78
40_min_high_	8	Tandom_state=None)	0.8930562
	4	GaussianNB	32
cat	4	Gaussialing	
40_min_high_	8	CaussianND	0.8861828
cat	8	GaussianNB	22
40_min_high_	15	CoursianND	0.8793364
cat	15	GaussianNB	72
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	0.5000660
40_min_updo	_	random_state=None, shrinking=True,	0.5222660
wn	4	tol=0.001, verbose=False)	33
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=2, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
40_min_updo		verbose=0,	0.5207284
wn	4	warm_start=False)	73
40_min_updo			0.5205119
wn	8	GaussianNB	88
40_min_updo			0.5198354
wn	4	voting_hard	71
40_min_updo			0.5195378
wn	4	GaussianNB	04
40_min_updo	4	voting_soft	0.5191318

wn			94
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
40 min updo		oob_score=False, random_state=None,	0.5184553
wn	4	verbose=0, warm_start=False)	77
40_min_updo			0.5181847
wn	8	voting_hard	7
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max depth=32, max features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob score=False, random state=None,	
40_min_updo		verbose=0,	0.5179682
	42	·	
wn	43	warm_start=False)	85
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
40_min_updo		learning_rate=1.0, n_estimators=100,	0.5173188
wn	4	random_state=None)	29
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
40_min_updo		n_neighbors=300, p=1,	0.5169129
wn	4	weights='uniform')	19
40_min_updo			0.5166152
wn	8	voting_soft	51
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=64, max_features='auto',	
		max_leaf_nodes=None,	
40_min_updo		min_samples_leaf=1, min_samples_split=2,	0.5163717

I		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		<pre>fit_intercept=True, intercept_scaling=1,</pre>	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
40_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5162093
wn	4	warm_start=False)	41
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
40_min_updo		verbose=0,	0.5161010
wn	8	warm_start=False)	99
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
40_min_updo		n_neighbors=300, p=2,	0.5159116
wn	8	weights='uniform')	74
40_min_updo	4.5	6	0.5159116
wn	15	voting_soft	74
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=10,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
40 min undo		min_weight_fraction_leaf=0.0,	0.5157493
40_min_updo wn	15	<pre>presort=False, random_state=None, splitter='best')</pre>	0.5157495
VVII	15	AdaBoostClassifier(algorithm='SAMME.R',	
		Adaboostclassificitaligoritifiii- SAlvillviL.IV,	
		base estimator=DecisionTreeClassifier(class weig	
		ht=None, criterion='gini', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min samples split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
40_min_updo		splitter='best'),	0.5148021
wn	15	learning_rate=1.0, n_estimators=50,	87
			0,

		random_state=None)	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob score=False, random state=None,	
40 min unda			0 5147210
40_min_updo	15	verbose=0,	0.5147210
wn	15	warm_start=False)	04
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max features=None,	
		max_leaf nodes=None, min samples leaf=1,	
		min samples split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
40_min_updo		learning_rate=1.0, n_estimators=100,	0.5146939
	8		
wn	٥	random_state=None)	44
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
40_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5144233
wn	15	warm_start=False)	37
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
40_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5142880
wn	8	warm_start=False)	34
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
40_min_updo		n_neighbors=100, p=2,	0.5140986
wn	15	weights='distance')	09
		DecisionTreeClassifier(class_weight=None,	
40_min_updo		criterion='entropy', max_depth=14,	0.5140715
wn	4	max_features=None,	48
**!!	+	max_reatures=None,	1 0

		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best')	
40_min_updo			0.5139091
wn	15	voting_hard	84
		DecisionTreeClassifier(class_weight=None,	
l		criterion='entropy', max_depth=7,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
40_min_updo		presort=False, random_state=None,	0.5130703
wn	8	splitter='best')	04
40_min_updo			0.5130161
wn	15	GaussianNB	82
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
40_min_updo		random_state=None, shrinking=True,	0.5127565
wn	8	tol=0.001, verbose=False)	81
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
40_min_updo		oob_score=False, random_state=None,	0.5119337
wn	8	verbose=0, warm_start=False)	55
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=32, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
40_min_updo		oob_score=False, random_state=None,	0.5115819
wn	15	verbose=0, warm_start=False)	67
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
40_min_updo		gamma='auto', kernel='rbf',	0.5109300
wn	15	max_iter=-1, probability=False,	71

İ	1	random_state=None, shrinking=True,	
		tol=0.001, verbose=False)	
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
		solver='liblinear', tol=0.0001, verbose=0,	0.4030416
5_min_cat	15	warm_start=False)	19
		LogisticRegression(C=0.01, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
		solver='liblinear', tol=0.0001,	0.4019862
5_min_cat	8	verbose=0, warm_start=False)	53
F	4.5		0.4012556
5_min_cat	15	voting_hard	15
F min sat		veting hard	0.3999296
5_min_cat	8	voting_hard	42
		SVC(C=1, cache_size=1024, class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3995709
5_min_cat	8	tol=0.001, verbose=False)	15
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3989283
5_min_cat	15	warm_start=False)	97
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	0.3987389
5_min_cat	15	presort=False, random_state=None,	73

I	l i	splitter='best'),	İ
		learning rate=1.0, n estimators=100,	
		random_state=None)	
			0.3985766
5_min_cat	8	voting_soft	09
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3984413
5_min_cat	8	warm_start=False)	05
			0.3976565
5_min_cat	15	voting_soft	46
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=100,	0.3974671
5_min_cat	8	random_state=None)	21
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3963305
5_min_cat	43	warm_start=False)	73
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=3,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3958705
5_min_cat	15	splitter='best')	42

		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3941386
5 min cat	8	verbose=0, warm_start=False)	59
5		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3933538
5_min_cat	15	verbose=0, warm_start=False)	99
<u> </u>		SVC(C=1, cache size=1024, class weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3926417
5_min_cat	15	tol=0.001, verbose=False)	72
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
		n_neighbors=300, p=2,	0.3919196
5_min_cat	8	weights='distance')	84
		SVC(C=1, cache_size=1024,	
		class weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3912501
5_min_cat	4	tol=0.001, verbose=False)	45
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=3,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3900524
5_min_cat	8	splitter='best')	98
		KNeighborsClassifier(algorithm='auto',	0.3868052
		Kiveighborselassiner (algorithm = auto)	0.3000032

I		metric_params=None, n_jobs=1,	
		n_neighbors=300, p=1,	
		weights='uniform')	
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		<pre>fit_intercept=True, intercept_scaling=1,</pre>	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
	_	solver='liblinear', tol=0.0001, verbose=0,	0.3862910
5_min_cat	4	warm_start=False)	65
			0.3853439
5_min_cat	4	voting_hard	41
F			0.3852898
5_min_cat	4	voting_soft	2
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini', max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min weight fraction leaf=0.0,	
		n estimators=100, n jobs=1,	
		oob_score=False, random_state=None,	0.3849109
5_min_cat	43	verbose=0, warm_start=False)	7
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3844238
5_min_cat	4	warm_start=False)	78
		AdaBoostClassifier(algorithm='SAMME.R',	
		have retired to the Total 16 / /	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	0.3834226
5_min_cat	4	random_state=None)	34
5_min_cat	8	GaussianNB	0.3817178
		3000000	0.001, 1, 0

			11
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3814201
5_min_cat	4	splitter='best')	44
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	0.2000120
<u> </u>		oob_score=False, random_state=None,	0.3800129
5_min_cat	4	verbose=0, warm_start=False)	89
F	4	CoussianNB	0.3763868
5_min_cat	4	GaussianNB	59
E min cat	15	GaussianNB	0.3760621
5_min_cat	13	KNeighborsClassifier(algorithm='auto',	31
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
		n_neighbors=300, p=2,	0.3754397
5_min_cat	4	weights='distance')	36
<u> </u>	•	SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
5_min_high_c		random_state=None, shrinking=True,	0.9095732
at	8	tol=0.001, verbose=False)	34
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
5_min_high_c		random_state=None, shrinking=True,	0.9093992
at	4	tol=0.001, verbose=False)	81
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
5_min_high_c		max_iter=-1, probability=False,	0.9093702
at	15	random_state=None, shrinking=True,	89

		tol=0.001, verbose=False)	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max leaf nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob score=False, random state=None,	
5_min_high_c		verbose=0,	0.9013367
at	8	warm_start=False)	97
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
E min high c		verbose=0,	0.9013367
5_min_high_c at	15		0.9013307
at	13	warm_start=False) RandomForestClassifier(bootstrap=True,	97
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
C main biab a		oob_score=False, random_state=None,	0.0012007
5_min_high_c	42	verbose=0,	0.9013097
at	43	warm_start=False)	36
5_min_high_c	1.5	veting hard	0.9013097
at	15	voting_hard	36
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
F main letels		metric_params=None, n_jobs=1,	0.0043036
5_min_high_c	_	n_neighbors=100, p=1,	0.9012826
at	4	weights='distance')	76
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
5_min_high_c		n_neighbors=25, p=1,	0.9012826
at	8	weights='uniform')	76
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
5_min_high_c		metric_params=None, n_jobs=1,	0.9012826
at	15	n_neighbors=25, p=2,	76

		weights='distance')	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max depth=4, max features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
5_min_high_c		verbose=0,	0.9012826
at	4	warm_start=False)	76
at	4	ExtraTreesClassifier(bootstrap=False,	70
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	0.0010006
5_min_high_c		oob_score=False, random_state=None,	0.9012826
at	4	verbose=0, warm_start=False)	76
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
5_min_high_c		oob_score=False, random_state=None,	0.9012826
at	15	verbose=0, warm_start=False)	76
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
5_min_high_c		oob_score=False, random_state=None,	0.9012556
at	8	verbose=0, warm_start=False)	15
5_min_high_c			0.9012556
at	8	voting_hard	15
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
5_min_high_c		min_weight_fraction_leaf=0.0,	0.9012285
at	4	presort=False, random_state=None,	54
L			

1		splitter='best')	
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
5_min_high_c		presort=False, random_state=None,	0.9012285
at	8	splitter='best')	54
at	0	DecisionTreeClassifier(class_weight=None,	54
		· — ·	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
5_min_high_c		presort=False, random_state=None,	0.9012285
at	15	splitter='best')	54
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
5_min_high_c		oob_score=False, random_state=None,	0.9012285
at	43	verbose=0, warm_start=False)	54
5_min_high_c		, - ,	0.9012285
at	4	voting_soft	54
5_min_high_c		000000_0000	0.9011473
at	8	voting_soft	72
5_min_high_c	0	VOUNE_SOIT	0.9011473
	4	voting hard	
at	4	voting_hard	72
		LogisticRegression(C=0.001, class_weight=None,	
1			
		dual=False, fit_intercept=True,	
		dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100,	
		<pre>dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1,</pre>	
		dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None,	
5_min_high_c		dual=False, fit_intercept=True,	0.9011203
5_min_high_c at	4	dual=False, fit_intercept=True,	0.9011203 12
	4	dual=False, fit_intercept=True,	_
	4	dual=False, fit_intercept=True,	_
	4	dual=False, fit_intercept=True,	_
	4	dual=False, fit_intercept=True,	_
	4	dual=False, fit_intercept=True,	_
	4	dual=False, fit_intercept=True,	_
at	4	dual=False, fit_intercept=True,	12

at			51
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		_ · _ ·	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	
		random_state=None)	
5_min_high_c			0.9010661
at	15	voting_soft	9
		LogisticRegression(C=0.01, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
5_min_high_c		solver='liblinear', tol=0.0001,	0.9010391
at at	8	verbose=0, warm_start=False)	3
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
5_min_high_c		learning_rate=1.0, n_estimators=50,	0.9008497
at	15	random_state=None)	05
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
5_min_high_c		learning_rate=1.0, n_estimators=50,	0.9005520
at	8	random_state=None)	38
5_min_high_c		random_state None;	0.8850192
at	4	GaussianNB	13
			0.8755479
			11 0 /66/17()
min_high_c	8	GaussianNB	0.6733479

at			79
5_min_high_c			0.8693240
at	15	GaussianNB	24
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=2, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
5_min_updow		verbose=0,	0.5308221
n	8	warm_start=False)	03
5_min_updow			0.5303079
n .	8	GaussianNB	5
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
5_min_updow		presort=False, random state=None,	0.5296314
n l	4	splitter='best')	34
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
5_min_updow		presort=False, random state=None,	0.5293337
n l	15	splitter='best')	66
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
5_min_updow		presort=False, random_state=None,	0.5293067
n	8	splitter='best')	06
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
5_min_updow		solver='liblinear', tol=0.0001, verbose=0,	0.5292796
		· · · · · · · · · · · · · · · · ·	

		RandomForestClassifier(bootstrap=True,	1
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
5 min updow		verbose=0,	0.5290631
n .	4	warm_start=False)	6
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		<pre>fit_intercept=True, intercept_scaling=1,</pre>	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
5_min_updow		solver='liblinear', tol=0.0001, verbose=0,	0.5290090
n	15	warm_start=False)	38
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
5_min_updow		verbose=0,	0.5290090
n	15	warm_start=False)	38
5_min_updow			0.5283595
n	4	voting_soft	82
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
F		max_iter=-1, probability=False,	0.5304004
5_min_updow	4	random_state=None, shrinking=True,	0.5281804
n	4	tol=0.001, verbose=False)	48
		ExtraTreesClassifier(bootstrap=False, class_weight=None, criterion='gini',	
		max depth=16, max features='auto',	
		max_leaf_nodes=None,	
		min samples leaf=1, min samples split=2,	
		min weight fraction leaf=0.0,	
		n estimators=100, n jobs=1,	
5_min_updow		oob_score=False, random_state=None,	0.5276560
n	15	verbose=0, warm_start=False)	0.3270300
5 min updow	8	voting hard	0.5274395
iiiii_upuow	0	ขอนเทร_เาสเน	0.5274535

n			19
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		fit_intercept=True, intercept_scaling=1,	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
5_min_updow		solver='liblinear', tol=0.0001, verbose=0,	0.5273853
	4	warm_start=False)	98
n 5_min_updow	4	waitii_start=raise)	0.5271418
	4	voting hard	
nda	4	voting_hard	52
5_min_updow	4.5	waters hand	0.5268712
n	15	voting_hard	45
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
5_min_updow		oob_score=False, random_state=None,	0.5265194
n	8	verbose=0, warm_start=False)	57
5_min_updow			0.5263300
n	15	GaussianNB	32
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
5_min_updow		learning_rate=1.0, n_estimators=50,	0.5261947
n	8	random_state=None)	29
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
5_min_updow		random_state=None, shrinking=True,	0.5260350
n	8	tol=0.001, verbose=False)	23
5_min_updow			0.5259511
n	4	GaussianNB	83
5_min_updow		AdaBoostClassifier(algorithm='SAMME.R',	0.5259511
		, ,	

se_estimator=DecisionTreeClassifier(class_weig_	ĺ
_ , _,	
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• =	0.5256264
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· = ·	0.5253287
ing soft	87
<u></u>	0.5251934
ing soft	84
	
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estimators=30, n_jobs=1,	
oob_score=False, random_state=None,	
bose=0,	0.5251123
warm_start=False)	02
metric_params=None, n_jobs=1,	
neighbors=300, p=1,	0.5228392
weights='distance')	05
metric_params=None, n_jobs=1,	
_	0.5217297
weights='uniform')	18
eighborsClassifier(algorithm='auto',	
f_size=30, metric='minkowski',	l
f_size=30, metric='minkowski', metric_params=None, n_jobs=1,	0.5208367
	rbose=0, warm_start=False) eighborsClassifier(algorithm='auto', f_size=30, metric='minkowski', metric_params=None, n_jobs=1, neighbors=300, p=1, weights='distance') eighborsClassifier(algorithm='auto', f_size=30, metric='minkowski', metric_params=None, n_jobs=1, neighbors=300, p=1, weights='uniform') eighborsClassifier(algorithm='auto',

		weights='uniform')	
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
5_min_updow		oob_score=False, random_state=None,	0.5207825
n	43	verbose=0, warm_start=False)	95
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min weight fraction leaf=0.0,	
		presort=False, random state=None,	
		splitter='best'),	
5_min_updow		learning_rate=1.0, n_estimators=100,	0.5199978
n	15	random_state=None)	35
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
5_min_updow		random_state=None, shrinking=True,	0.5180911
n	15	tol=0.001, verbose=False)	52
			0.3897007
80_min_cat	15	voting_hard	09
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
	_	verbose=0,	0.3875358
80_min_cat	8	warm_start=False)	55
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=5,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	0.2067546
00 main and		min_samples_split=2,	0.3867510
80_min_cat	8	min_weight_fraction_leaf=0.0,	96

presort=False, random_state=None, splitter='best') RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=8, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, warm_start=False) 0.3853710 80_min_cat 15 LogisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, verbose=0, warm_start=False) 85 0.3846403 80_min_cat 15 voting_soft voting_soft
RandomForestClassifier(bootstrap=True, class_weight=None, criterion='gini', max_depth=8, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, verbose=0, 0.3853710 80_min_cat 15
class_weight=None, criterion='gini', max_depth=8, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, verbose=0, verbose=0, logisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, verbose=0, warm_start=False) 80_min_cat 15 voting_soft class_weight=None, 0.3853710 voting_soft 0.3846403
max_depth=8, max_features='sqrt', max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, verbose=0, verbose=0, logisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, solver='liblinear', tol=0.0001, logisticRegression(C=0.001, lass_weight=None, verbose=0, warm_start=False) logisticRegression(C=0.001, class_weight=None, logi
max_leaf_nodes=None, min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, verbose=0, logisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, verbose=0, warm_start=False) 80_min_cat 15 voting_soft 0.3846403 0.3846403
min_samples_leaf=1, min_samples_split=2, min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, 0.3853710 80_min_cat 15 LogisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, 80_min_cat 15 voting_soft 0.3846403 80_min_cat 15 voting_soft
min_weight_fraction_leaf=0.0, n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, 0.3853710 80_min_cat 15 LogisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, 0.3846944 verbose=0, warm_start=False) 85 0.3846403 80_min_cat 15 voting_soft
n_estimators=100, n_jobs=1, oob_score=False, random_state=None, verbose=0, 0.3853710 80_min_cat 15 LogisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, 0.3846944 80_min_cat 15 verbose=0, warm_start=False) 0.3846403 80_min_cat 15 voting_soft
oob_score=False, random_state=None, verbose=0,0.385371080_min_cat15warm_start=False)02LogisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, verbose=0, warm_start=False)0.384694480_min_cat15verbose=0, warm_start=False)8580_min_cat15voting_soft64
80_min_cat 15 verbose=0, warm_start=False) 0.3853710 LogisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, solver='liblinear', tol=0.0001, verbose=0, warm_start=False) 0.3846944 80_min_cat 15 voting_soft 0.3846403
80_min_cat 15 warm_start=False) 02 LogisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, solver='liblinear', tol=0.0001, verbose=0, warm_start=False) 0.3846944 80_min_cat 15 voting_soft 0.3846403
LogisticRegression(C=0.001, class_weight=None, dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, 0.3846944 verbose=0, warm_start=False) 85 80_min_cat 15 voting_soft 0.3846403
dual=False, fit_intercept=True,
intercept_scaling=1, max_iter=100, multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, 0.3846944 verbose=0, warm_start=False) 80_min_cat 15 voting_soft 0.3846403
multi_class='ovr', n_jobs=1, penalty='l2', random_state=None, solver='liblinear', tol=0.0001, 0.3846944 80_min_cat 15 verbose=0, warm_start=False) 85 80_min_cat 15 voting_soft 64
penalty='l2', random_state=None, solver='liblinear', tol=0.0001, 0.3846944 verbose=0, warm_start=False) 80_min_cat 15 voting_soft 0.3846403
80_min_cat 15 verbose=0, warm_start=False) 85 80_min_cat 15 voting_soft 64
80_min_cat 15 voting_soft 0.3846403 64
80_min_cat 15 voting_soft 64
0.3830708
80_min_cat 8 voting_hard 45
KNeighborsClassifier(algorithm='auto',
leaf_size=30, metric='minkowski',
metric_params=None, n_jobs=1,
n_neighbors=300, p=2, 0.3829896
80_min_cat 15 weights='distance') 63
KNeighborsClassifier(algorithm='auto',
leaf size=30, metric='minkowski',
metric params=None, n jobs=1,
n neighbors=300, p=1, 0.3812577
80_min_cat 8 weights='distance') 8
0.3809871
80_min_cat 8 voting_soft 73
ExtraTreesClassifier(bootstrap=False,
class weight=None, criterion='gini',
max_depth=16, max_features='auto',
max_leaf_nodes=None,
min_samples_leaf=1, min_samples_split=2,
min_weight_fraction_leaf=0.0,
n_estimators=100, n_jobs=1,
oob score=False, random state=None, 0.3803918
80_min_cat 15 verbose=0, warm_start=False) 39
AdaBoostClassifier(algorithm='SAMME.R',
0.3802294
80_min_cat 15 base_estimator=DecisionTreeClassifier(class_weig 74

ht=None, criterion='gini', max_depth=1,	1 1
max_features=None,	
max_leaf_nodes=None, min_samples_leaf	:_1
min_samples_split=2,	-1,
min_weight_fraction_leaf=0.0,	
presort=False, random_state=None	,
splitter='best'),	,
learning_rate=1.0, n_estimators=400),
random_state=None)	
AdaBoostClassifier(algorithm='SAMME.R',	
base_estimator=DecisionTreeClassifier(cla	ss weig
ht=None, criterion='gini', max_depth=2,	
max_features=None,	
max_leaf_nodes=None, min_samples_leaf	· <u>-</u> 1
min_samples_split=2,	-1,
min_weight_fraction_leaf=0.0,	
presort=False, random_state=None	
splitter='best'),	,
learning_rate=1.0, n_estimators=100	0.3791199
80_min_cat 8 random_state=None)	87
RandomForestClassifier(bootstrap=True,	07
class_weight=None, criterion='gini',	
max_depth=8, max_features='sqrt',	
max_leaf_nodes=None,	
min_samples_leaf=1, min_samples_	_spiit=2,
min_weight_fraction_leaf=0.0,	
n_estimators=100, n_jobs=1,	
oob_score=False, random_state=No	
verbose=0,	0.3780375
80_min_cat 43 warm_start=False)	6
DecisionTreeClassifier(class_weight=None	,
criterion='gini', max_depth=3,	
max_features=None,	
max_leaf_nodes=None, min_samples_leaf	^E =1,
min_samples_split=2,	
min_weight_fraction_leaf=0.0,	
presort=False, random_state=None	, 0.3775234
80_min_cat 15 splitter='best')	07
SVC(C=0.01, cache_size=1024,	
class_weight='balanced', coef0=0.0,	
decision_function_shape=None, degree=	3,
gamma='auto', kernel='rbf',	
max_iter=-1, probability=False,	
random_state=None, shrinking=True,	0.3759712
80_min_cat 8 tol=0.001, verbose=False)	4
ExtraTreesClassifier(bootstrap=False,	0.3756291
80_min_cat 8 class_weight=None, criterion='gini',	

	1	max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
		SVC(C=1, cache_size=1024,	
		class_weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3729850
80_min_cat	15	tol=0.001, verbose=False)	4
_		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=32, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3714076
80_min_cat	43	verbose=0, warm_start=False)	96
		LogisticRegression(C=0.1, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
		solver='liblinear', tol=0.0001,	0.3684310
80_min_cat	8	verbose=0, warm_start=False)	22
			0.3677545
80_min_cat	15	GaussianNB	06
			0.3651025
80_min_cat	8	GaussianNB	6
		SVC(C=1, cache_size=1024,	
		class_weight='balanced', coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	0.3595906
80_min_cat	4	tol=0.001, verbose=False)	3
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
		n_neighbors=300, p=1,	0.3549006
80_min_cat	4	weights='distance')	87
80_min_cat	4	voting_soft	0.3521675

		1	6
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=4,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	0.3520593
80 min cat	4	splitter='best')	17
		,	0.3513016
80_min_cat	4	voting_hard	18
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.3486496
80_min_cat	4	warm_start=False)	73
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=64, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	0.3473507
80_min_cat	4	verbose=0, warm start=False)	6
			0.3466471
80_min_cat	4	GaussianNB	83
		AdaBoostClassifier(algorithm='SAMME.R',	
		,	
		base estimator=DecisionTreeClassifier(class weig	
		ht=None, criterion='gini', max_depth=4,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min weight fraction leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	0.3463224
80_min_cat	4	random_state=None)	55
		LogisticRegression(C=0.0001, class_weight=None,	33
		dual=False,	0.3382313
80_min_cat	4	fit_intercept=True, intercept_scaling=1,	15
	·	0 12 12 12 13 1 1 1 2 3 1 1 1 1 2 3 1 1 1 1	

1		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
		solver='liblinear', tol=0.0001, verbose=0,	
		warm_start=False)	
		SVC(C=0.0001, cache size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
80_min_high_		random_state=None, shrinking=True,	0.9093992
cat	4	tol=0.001, verbose=False)	81
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
80_min_high_		random_state=None, shrinking=True,	0.9093992
cat	8	tol=0.001, verbose=False)	81
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
80_min_high_		random_state=None, shrinking=True,	0.9093992
cat	15	tol=0.001, verbose=False)	81
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=4, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
		oob_score=False, random_state=None,	
80_min_high_		verbose=0,	0.9044487
cat	8	warm_start=False)	74
	T	LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		<pre>intercept_scaling=1, max_iter=100,</pre>	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
80_min_high_		solver='liblinear', tol=0.0001,	0.9044217
cat	4	verbose=0, warm_start=False)	13
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
80_min_high_		metric_params=None, n_jobs=1,	0.9044217
cat	4	n_neighbors=100, p=1,	13

		weights='uniform')	
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
80_min_high_		n_neighbors=100, p=1,	0.9044217
cat	8	weights='uniform')	13
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
80_min_high_		n_neighbors=100, p=1,	0.9044217
cat	15	weights='uniform')	13
		DecisionTreeClassifier(class_weight=None,	
		criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
80_min_high_		presort=False, random_state=None,	0.9044217
cat	4	splitter='best')	13
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
80_min_high_		presort=False, random_state=None,	0.9044217
cat	8	splitter='best')	13
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
80_min_high_		presort=False, random_state=None,	0.9044217
cat	15	splitter='best')	13
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max depth=1, max features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	0.9044217
80 min high		VELDUSE-U.	0.3044717
80_min_high_ cat	4	· · · · · · · · · · · · · · · · · · ·	_
80_min_high_ cat 80_min_high_	4	warm_start=False) RandomForestClassifier(bootstrap=True,	13 0.9044217

I	l I	max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0,	
		warm_start=False)	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
80_min_high_		verbose=0,	0.9044217
cat	43	warm_start=False)	13
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
80_min_high_		oob_score=False, random_state=None,	0.9044217
cat	4	verbose=0, warm_start=False)	13
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n estimators=10, n jobs=1,	
80_min_high_		oob score=False, random state=None,	0.9044217
cat	8	verbose=0, warm start=False)	13
	_	ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=1, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n estimators=10, n jobs=1,	
80_min_high_		oob score=False, random state=None,	0.9044217
cat	15	verbose=0, warm_start=False)	13
cat	13	ExtraTreesClassifier(bootstrap=False,	13
80_min_high_		class_weight=None, criterion='gini',	0.9044217
	42		
cat	43	max_depth=1, max_features='auto',	13

		max_leaf_nodes=None,	1
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
80_min_high_			0.9044217
cat	4	voting_soft	13
80_min_high_			0.9044217
cat	4	voting_hard	13
80_min_high_			0.9044217
cat	8	voting_hard	13
80_min_high_			0.9043946
cat	15	voting_hard	53
80_min_high_	4.5	tinft	0.9043946
cat	15	voting_soft	53
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True, intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='l2', random_state=None,	
80_min_high_		solver='liblinear', tol=0.0001,	0.9043675
cat	8	verbose=0, warm_start=False)	92
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='I2', random_state=None,	
80_min_high_		solver='liblinear', tol=0.0001,	0.9043675
cat	15	verbose=0, warm_start=False)	92
80_min_high_			0.9042864
cat	8	voting_soft	1
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2, min_weight_fraction_leaf=0.0,	
		presort=False, random state=None,	
		splitter='best'),	
80_min_high_		learning rate=1.0, n estimators=50,	0.9035016
cat	4	random_state=None)	51
	-	AdaBoostClassifier(algorithm='SAMME.R',	
80_min_high_		, ,	0.9026627
cat	8	base_estimator=DecisionTreeClassifier(class_weig	7

1		ht=None, criterion='gini', max_depth=1,	i i
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
		learning_rate=1.0, n_estimators=50,	
		random_state=None)	
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max leaf nodes=None, min samples leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	0.0045363
80_min_high_	45	learning_rate=1.0, n_estimators=50,	0.9015262
cat	15	random_state=None)	22
80_min_high_			0.8947610
cat	4	GaussianNB	54
80_min_high_			0.8882394
cat	8	GaussianNB	33
80_min_high_			0.8838826
cat	15	GaussianNB	65
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=7,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
80_min_updo		presort=False, random_state=None,	0.5205661
wn	15	splitter='best')	09
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=1,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
80_min_updo		learning_rate=1.0, n_estimators=50,	0.5186177
wn	8	random_state=None)	41

I		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=10, n_jobs=1,	
80_min_updo		oob score=False, random state=None,	0.5185906
wn	4	verbose=0, warm_start=False)	0.5185900
80 min updo	4	verbose-o, warrii_start-raise/	0.5184012
wn	8	voting_soft	56
***		KNeighborsClassifier(algorithm='auto',	30
		leaf_size=30, metric='minkowski',	
		metric_params=None, n_jobs=1,	
80_min_updo		n_neighbors=100, p=2,	0.5180765
	8	weights='uniform')	0.5160765
wn	0	AdaBoostClassifier(algorithm='SAMME.R',	28
		Audboostclassifier(digoritififi= SAlvilviE.K.,	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=2,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
00 main		splitter='best'),	0.5476425
80_min_updo	15	learning_rate=1.0, n_estimators=400,	0.5176435
wn	15	random_state=None)	57
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=64, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
00		oob_score=False, random_state=None,	0.5475633
80_min_updo	42	verbose=0,	0.5175623
wn	43	warm_start=False)	75
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
00		metric_params=None, n_jobs=1,	0.5474005
80_min_updo		n_neighbors=25, p=2,	0.5171835
wn	4	weights='distance')	25
		SVC(C=1, cache_size=1024, class_weight=None,	
		coef0=0.0,	
80_min_updo		decision_function_shape=None, degree=3,	0.5167865
wn	4	gamma='auto', kernel='rbf',	01

		max_iter=-1, probability=False,	
		random_state=None, shrinking=True,	
		tol=0.001, verbose=False)	
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min weight fraction leaf=0.0,	
		n estimators=10, n jobs=1,	
		oob_score=False, random_state=None,	
80_min_updo		verbose=0,	0.5163987
wn	15	warm_start=False)	66
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=64, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1,	
80_min_updo		oob_score=False, random_state=None,	0.5159387
wn	15	verbose=0, warm_start=False)	35
		RandomForestClassifier(bootstrap=True,	
		class_weight=None, criterion='gini',	
		max_depth=8, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
80_min_updo		verbose=0,	0.5158304
wn	8	warm_start=False)	92
80_min_updo			0.5152080
wn	4	voting_soft	97
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=14,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
80_min_updo		presort=False, random_state=None,	0.5151810
wn	8	splitter='best')	36
		ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=32, max_features='auto',	
80_min_updo		max_leaf_nodes=None,	0.5146127
wn	8	min_samples_leaf=1, min_samples_split=2,	62

	1	min_weight_fraction_leaf=0.0,	
		n_estimators=30, n_jobs=1,	
		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
80_min_updo			0.5144233
wn	8	GaussianNB	37
		RandomForestClassifier(bootstrap=True,	
l		class_weight=None, criterion='gini',	
		max_depth=64, max_features='sqrt',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		n_estimators=100, n_jobs=1, oob_score=False, random_state=None,	
80_min_updo		verbose=0,	0.5134220
wn	4	warm_start=False)	92
80 min updo	7	warni_start=raise/	0.5133138
wn	8	voting_hard	5
		DecisionTreeClassifier(class_weight=None,	
		criterion='entropy', max_depth=20,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
80_min_updo		presort=False, random_state=None,	0.5131785
wn	4	splitter='best')	46
80_min_updo			0.5130973
wn	4	voting_hard	64
		AdaBoostClassifier(algorithm='SAMME.R',	
		base_estimator=DecisionTreeClassifier(class_weig	
		ht=None, criterion='gini', max_depth=4,	
		max_features=None,	
		max_leaf_nodes=None, min_samples_leaf=1,	
		min_samples_split=2,	
		min_weight_fraction_leaf=0.0,	
		presort=False, random_state=None,	
		splitter='best'),	
80_min_updo		learning_rate=1.0, n_estimators=50,	0.5130161
wn	4	random_state=None)	82
	T	ExtraTreesClassifier(bootstrap=False,	
		class_weight=None, criterion='gini',	
		max_depth=16, max_features='auto',	
		max_leaf_nodes=None,	
		min_samples_leaf=1, min_samples_split=2,	0.540.00=-
80_min_updo	42	min_weight_fraction_leaf=0.0,	0.5126373
wn	43	n_estimators=30, n_jobs=1,	33

1		oob_score=False, random_state=None,	
		verbose=0, warm_start=False)	
		KNeighborsClassifier(algorithm='auto',	
		leaf_size=30, metric='minkowski',	
		metric params=None, n jobs=1,	
80_min_updo		n_neighbors=25, p=1,	0.5120961
wn	15	weights='distance')	2
80_min_updo			0.5101477
wn	15	voting_soft	51
80_min_updo		<u> </u>	0.5092547
wn	4	GaussianNB	49
80_min_updo			0.5092547
wn	15	GaussianNB	49
		LogisticRegression(C=0.001, class_weight=None,	
		dual=False, fit_intercept=True,	
		intercept_scaling=1, max_iter=100,	
		multi_class='ovr', n_jobs=1,	
		penalty='I2', random_state=None,	
80_min_updo		solver='liblinear', tol=0.0001,	0.5089570
wn	8	verbose=0, warm_start=False)	82
80_min_updo			0.5074958
wn	15	voting_hard	06
		LogisticRegression(C=0.0001, class_weight=None,	
		dual=False,	
		<pre>fit_intercept=True, intercept_scaling=1,</pre>	
		max_iter=100,	
		multi_class='ovr', n_jobs=1, penalty='l2',	
		random_state=None,	
80_min_updo		solver='liblinear', tol=0.0001, verbose=0,	0.5073875
wn	4	warm_start=False)	63
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
80_min_updo		random_state=None, shrinking=True,	0.5064362
wn	8	tol=0.001, verbose=False)	75
		SVC(C=0.0001, cache_size=1024,	
		class_weight=None, coef0=0.0,	
		decision_function_shape=None, degree=3,	
		gamma='auto', kernel='rbf',	
		max_iter=-1, probability=False,	
80_min_updo		random_state=None, shrinking=True,	0.5064362
wn	15	tol=0.001, verbose=False)	75
		LogisticRegression(C=0.001, class_weight=None,	
80_min_updo		dual=False, fit_intercept=True,	0.5059533
wn	15	intercept_scaling=1, max_iter=100,	47

multi_class='ovr', n_jobs=1,	
penalty='l2', random_state=None,	
solver='liblinear', tol=0.0001,	
verbose=0, warm_start=False)	

Model fit statistics

Widuel III Statistics		
score:defscr period:1 var_type:return	in-sample buys: 57 sells: 4 %up: 85.25% mean: 0.000913272339701 std: 0.000977944852889 trade_z: 0.933868956929	out-of-sample buys: 22 sells: 1 %up: 39.13% mean: -0.000109574673595 std: 0.00258754285542 trade_z: -0.0423469985685
	in-sample buys: 20387 sells: 22732	out-of-sample buys: 7101 sells: 6446
score:defscr	%up: 53.46% mean: 8.3690983863e-	%up: 51.69% mean: -2.87087204245e-
period:1	06 std: 0.000417485735852 trade_z:	06 std: 0.000520244080059 trade_z:
var_type:updow	0.0200464295366 raw_accuracy:	-0.00551831755995 raw_accuracy:
n	53.46%	51.69%
	in-sample buys: 12084 sells: 11670	out-of-sample buys: 4490 sells: 4421
	%up: 52.85% mean: 3.49153784918e-	%up: 52.31% mean: -8.38912432874e-
score:defscr	06 std: 0.000502849818862 trade_z:	07 std: 0.000593657235561 trade_z:
period:1	0.00694350026234 raw_accuracy:	-0.00141312592961 raw_accuracy:
var_type:cat	40.99%	39.37%
score:defscr period:1	in-sample buys: 0 sells: 0 %up:	out-of-sample buys: 0 sells: 0 %up:
var_type:high_c	0.00% mean: nan std: nan trade z:	0.00% mean: nan std: nan trade_z:
at	nan raw_accuracy: 89.67%	nan raw_accuracy: 89.71%
	in-sample buys: 47 sells: 1042 %up:	out-of-sample buys: 30 sells: 444
score:trade_z	60.61% mean: 0.000113491104059	%up: 55.91% mean: 4.88527760391e-
period:1	std: 0.000670637281491 trade_z:	05 std: 0.00104080020932 trade_z:
var_type:return	0.169228742856	0.0469377077383
	in-sample buys: 21568 sells: 21551	
	%up: 100.00% mean:	out-of-sample buys: 6962 sells: 6585
score:trade_z	0.000294344914513 std:	%up: 51.69% mean: 3.47308865222e-
period:1	0.00029618143937 trade_z:	06 std: 0.000520240407999 trade_z:
var_type:updow	0.993799324966 raw_accuracy:	0.0066759302023 raw_accuracy:
n	100.00%	51.69%
	in-sample buys: 11507 sells: 12170	out-of-sample buys: 5076 sells: 5191
	%up: 59.89% mean: 8.56230887306e-	%up: 52.49% mean: 9.89298706811e-
score:trade_z	05 std: 0.000498940129782 trade_z:	06 std: 0.000567096075312 trade_z:
period:1	0.171609946003 raw_accuracy:	0.017444993007 raw_accuracy:
var_type:cat	46.25%	38.26%
	in cample hove 2146 Lealler 2262 l	out-of-sample buys: 26 sells: 53
score:trado a l	in-sample buys: 2146 sells: 2263 %up: 100.00% mean:	%up: 53.16% mean: 0.000129333862362 std:
score:trade_z period:1	0.000939171232172 std:	0.000129333862362 std: 0.00200624935326 trade_z:
var type:high c	0.000939171232172 Std. 0.000413424470168 trade_z:	0.00200024933320 trade_z. 0.0644654973477 raw_accuracy:
at	2.27168757522 raw_accuracy: 99.90%	89.67%
score:defscr	in-sample buys: 2865 sells: 40253	out-of-sample buys: 1008 sells: 12537
period:5	%up: 51.27% mean: 2.90620357824e-	%up: 50.52% mean: 1.84188431864e-
<u> </u>		

var_type:return	05 std: 0.0009076364367 trade_z: 0.032019467936	05 std: 0.00110972245053 trade_z: 0.0165977025856
score:defscr period:5 var_type:updow n	in-sample buys: 19779 sells: 23340 %up: 53.74% mean: 1.95132781616e- 05 std: 0.000907886785316 trade_z: 0.0214930743317 raw_accuracy: 53.74%	out-of-sample buys: 6674 sells: 6873 %up: 51.44% mean: -2.1191849074e- 05 std: 0.00110970669135 trade_z: -0.0190968021003 raw_accuracy: 51.44%
score:defscr period:5 var_type:cat	in-sample buys: 11089 sells: 11455 %up: 54.02% mean: 2.71430739948e-05 std: 0.00108226116879 trade_z: 0.0250799666268 raw_accuracy: 41.06%	out-of-sample buys: 4045 sells: 4416 %up: 51.09% mean: -3.02340748959e- 05 std: 0.00127029444314 trade_z: -0.0238008400802 raw_accuracy: 37.84%
score:defscr period:5 var_type:high_c at	in-sample buys: 44 sells: 39 %up: 98.80% mean: 0.00242973337701 std: 0.00141363270133 trade_z: 1.71878690604 raw_accuracy: 89.88%	out-of-sample buys: 7 sells: 2 %up: 55.56% mean: -0.000287881393278 std: 0.000944156418066 trade_z: -0.30490858058 raw_accuracy: 89.66%
score:trade_z period:5 var_type:return	in-sample buys: 2955 sells: 1442 %up: 55.45% mean: 0.000158411723008 std: 0.00110019452654 trade_z: 0.143985194606	out-of-sample buys: 1066 sells: 374 %up: 53.96% mean: 8.7452952648e-05 std: 0.00156710722375 trade_z: 0.0558053407723
score:trade_z period:5 var_type:updow n	in-sample buys: 21335 sells: 21784 %up: 100.00% mean: 0.00063969627449 std: 0.000644529578616 trade_z: 0.992501035971 raw_accuracy: 100.00%	out-of-sample buys: 6502 sells: 7045 %up: 51.44% mean: 1.72981040082e-05 std: 0.00110977422116 trade_z: 0.0155870479584 raw_accuracy: 51.44%
score:trade_z period:5 var_type:cat	in-sample buys: 14414 sells: 14808 %up: 99.49% mean: 0.000871381355649 std: 0.000666868325037 trade_z: 1.30667678001 raw_accuracy: 99.48%	out-of-sample buys: 4903 sells: 4892 %up: 50.05% mean: 4.39532861766e- 07 std: 0.00115127680282 trade_z: 0.000381778613702 raw_accuracy: 34.11%
score:trade_z period:5 var_type:high_c at	in-sample buys: 480 sells: 524 %up: 99.90% mean: 0.00228521473718 std: 0.00112708727209 trade_z: 2.02754018589 raw_accuracy: 92.02%	out-of-sample buys: 53 sells: 59 %up: 55.36% mean: 0.000404677402004 std: 0.00325466708318 trade_z: 0.124337571758 raw_accuracy: 89.47%
score:defscr period:10 var_type:return	in-sample buys: 4319 sells: 38798 %up: 51.12% mean: 5.10940182711e-05 std: 0.00125429207782 trade_z: 0.0407353432063	out-of-sample buys: 1511 sells: 12028 %up: 50.36% mean: 2.54370914081e-05 std: 0.00154155326695 trade_z: 0.0165009487207
score:defscr period:10 var_type:updow n	in-sample buys: 20104 sells: 23015 %up: 53.03% mean: 1.45013294618e-05 std: 0.00125523000318 trade_z: 0.0115527269306 raw_accuracy: 53.03%	out-of-sample buys: 6364 sells: 7183 %up: 50.32% mean: -5.9152338621e- 05 std: 0.0015402542545 trade_z: -0.0384042689368 raw_accuracy: 50.32%

1	:	
	in-sample buys: 10653 sells: 13650	out-of-sample buys: 3967 sells: 5072
	%up: 53.58% mean: 4.6891630335e-	%up: 49.20% mean: -6.43616714778e-
score:defscr	05 std: 0.00144817956121 trade_z:	05 std: 0.0017374847627 trade_z: -
period:10	0.0323797073174 raw_accuracy:	0.0370430134753 raw_accuracy:
var_type:cat	40.86%	36.70%
score:defscr	in-sample buys: 20 sells: 34 %up:	out-of-sample buys: 0 sells: 10 %up:
period:10	98.15% mean: 0.00328566870036	50.00% mean: 0.000516589979197
var_type:high_c	std: 0.0013585175972 trade_z:	std: 0.00200929410934 trade_z:
at	2.41856911322 raw_accuracy: 89.82%	0.25710023077 raw_accuracy: 89.72%
	in-sample buys: 2956 sells: 400	
	%up: 54.47% mean:	out-of-sample buys: 1031 sells: 213
score:trade_z	0.000231499681635 std:	%up: 48.55% mean: -6.15344780173e-
period:10	0.00139337651903 trade_z:	05 std: 0.00221336590509 trade_z: -
var_type:return	0.166142947347	0.0278013128673
	in-sample buys: 18876 sells: 24243	out-of-sample buys: 5127 sells: 8420
score:trade_z	%up: 54.81% mean: 6.8568206033e-	%up: 49.86% mean: -5.09412087971e-
period:10	05 std: 0.00125343964609 trade_z:	06 std: 0.00154138135255 trade_z: -
var_type:updow	0.0547040348107 raw_accuracy:	0.0033049062591 raw_accuracy:
n	54.81%	49.86%
	in-sample buys: 11676 sells: 13217	
	%up: 56.32% mean:	out-of-sample buys: 4091 sells: 7522
	0.000114832247069 std:	%up: 50.19% mean: -5.34913112108e-
score:trade_z	0.00140735312726 trade_z:	06 std: 0.00159656902605 trade_z: -
period:10	0.0815944803368 raw_accuracy:	0.00335039139166 raw_accuracy:
var_type:cat	40.72%	34.83%
		out-of-sample buys: 22 sells: 40
	in-sample buys: 72 sells: 83 %up:	%up: 46.77% mean: -
score:trade_z	74.84% mean: 0.00160596407116	0.00121687130035 std:
period:10	std: 0.00231890717534 trade_z:	0.00455384145486 trade_z: -
var_type:high_c	0.692552116031 raw_accuracy:	0.267218635609 raw_accuracy:
at	89.71%	89.64%
	in-sample buys: 64 sells: 43054	out-of-sample buys: 24 sells: 13522
score:defscr	%up: 50.64% mean: 3.97521779146e-	%up: 50.22% mean: 2.11726800475e-
period:20	05 std: 0.00174765973271 trade_z:	05 std: 0.0021806120455 trade_z:
var_type:return	0.0227459482933	0.00970951256148
	in-sample buys: 17687 sells: 25432	
	%up: 55.07% mean:	out-of-sample buys: 3953 sells: 9594
score:defscr	0.000117512236424 std:	%up: 50.20% mean: -1.167538153e-05
period:20	0.00174414012237 trade_z:	std: 0.00218077641884 trade_z: -
var_type:updow	0.0673754562016 raw_accuracy:	0.00535377282565 raw_accuracy:
n	55.07%	50.20%
		out-of-sample buys: 3687 sells: 4644
	in-sample buys: 9975 sells: 12073	%up: 48.01% mean: -
	%up: 52.59% mean: 4.76299269024e-	0.000112654856303 std:
score:defscr	05 std: 0.00204268699776 trade_z:	0.00250870922147 trade_z: -
period:20	0.0233172908794 raw_accuracy:	0.0449055057235 raw_accuracy:
var_type:cat	40.08%	36.87%

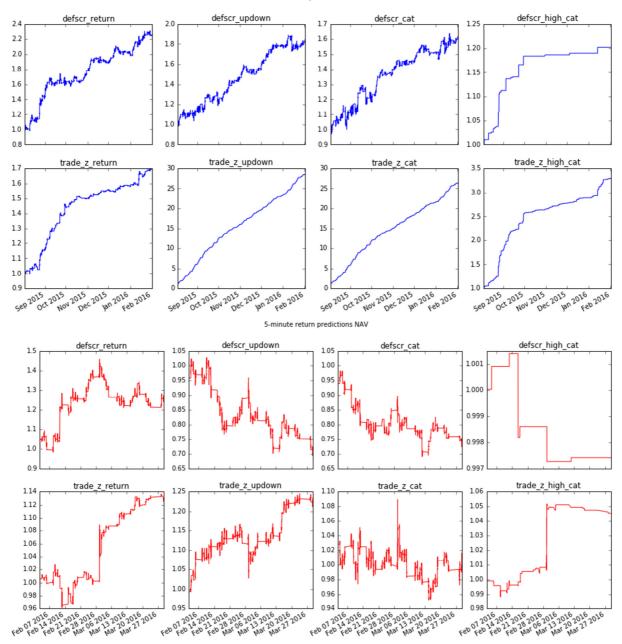
score:defscr		
period:20	in-sample buys: 0 sells: 0 %up:	out-of-sample buys: 0 sells: 0 %up:
var_type:high_c	0.00% mean: nan std: nan trade_z:	0.00% mean: nan std: nan trade_z:
at	nan raw_accuracy: 89.75%	nan raw_accuracy: 89.84%
	in-sample buys: 0 sells: 39277 %up:	out-of-sample buys: 0 sells: 12456
score:trade_z	50.82% mean: 4.63456027505e-05	%up: 50.29% mean: 1.92517276372e-
period:20	std: 0.00174026586514 trade_z:	05 std: 0.00217407932624 trade_z:
var_type:return	0.0266313347166	0.00885511738457
	in-sample buys: 17687 sells: 25432	
	%up: 55.07% mean:	out-of-sample buys: 3953 sells: 9594
score:trade_z	0.000117512236424 std:	%up: 50.20% mean: -1.167538153e-05
period:20	0.00174414012237 trade_z:	std: 0.00218077641884 trade_z: -
var_type:updow	0.0673754562016 raw_accuracy:	0.00535377282565 raw_accuracy:
n	55.07% in-sample buys: 11943 sells: 12552	50.20%
	%up: 56.95% mean:	out-of-sample buys: 3643 sells: 7813
	0.000204681729635 std:	%up: 50.14% mean: 2.05130069008e-
score:trade z	0.00195441369337 trade_z:	05 std: 0.00225273925231 trade_z:
period:20	0.104727944923 raw_accuracy:	0.00910580613347 raw accuracy:
var_type:cat	41.33%	35.23%
score:trade_z		
period:20	in-sample buys: 0 sells: 0 %up:	out-of-sample buys: 0 sells: 0 %up:
var_type:high_c	0.00% mean: nan std: nan trade_z:	0.00% mean: nan std: nan trade_z:
at	nan raw_accuracy: 89.75%	nan raw_accuracy: 89.84%
	in-sample buys: 212 sells: 42906	out-of-sample buys: 127 sells: 13419
score:defscr	%up: 50.74% mean: 7.32659428846e-	%up: 50.13% mean: 4.3801095269e-05
period:40	05 std: 0.00245844202714 trade_z:	std: 0.00309632049703 trade_z:
var_type:return	0.0298017777421	0.0141461761827
	in-sample buys: 13997 sells: 29122	
	%up: 55.29% mean:	out-of-sample buys: 4326 sells: 9221
score:defscr	0.000198145958758 std:	%up: 50.55% mean: -6.9859542011e-
period:40 var_type:updow	0.00245153442374 trade_z: 0.0808252810319 raw accuracy:	06 std: 0.00309650860241 trade_z: - 0.00225607453364 raw_accuracy:
	0.0608252810519 Taw_accuracy.	50.55%
11	in-sample buys: 10227 sells: 13644	out-of-sample buys: 3776 sells: 5182
	%up: 53.32% mean:	%up: 47.19% mean: -
	0.000140692248614 std:	0.000189340139201 std:
score:defscr	0.00277343706773 trade_z:	0.00342642421536 trade z: -
period:40	0.0507284806462 raw_accuracy:	0.0552588142333 raw_accuracy:
var_type:cat	40.26%	35.21%
score:defscr		
period:40	in-sample buys: 0 sells: 0 %up:	out-of-sample buys: 0 sells: 0 %up:
var_type:high_c	0.00% mean: nan std: nan trade_z:	0.00% mean: nan std: nan trade_z:
at	nan raw_accuracy: 89.80%	nan raw_accuracy: 89.89%
score:trade_z	in-sample buys: 11123 sells: 31989	out-of-sample buys: 3579 sells: 9965
period:40	%up: 52.07% mean:	%up: 48.81% mean: -3.67641704561e-
var_type:return	0.000161039920424 std:	05 std: 0.00309473336203 trade_z: -

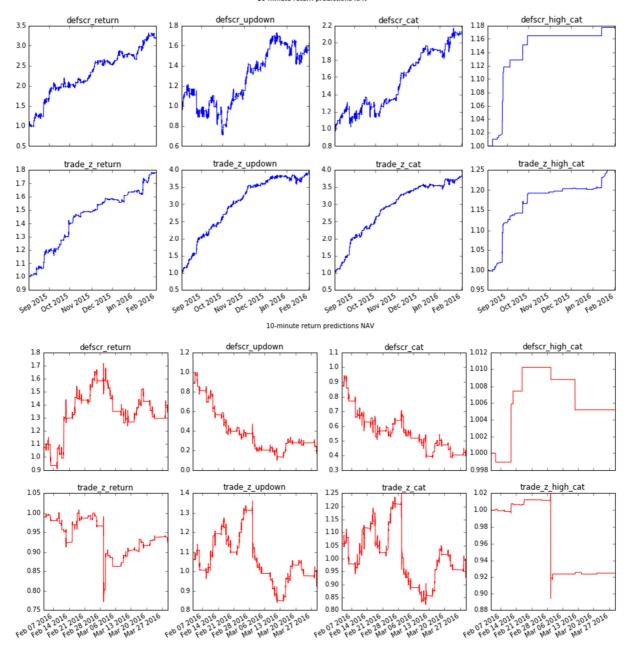
	0.00245394691412 trade_z: 0.0656248590779	0.0118795922476
score:trade_z period:40 var_type:updow n	in-sample buys: 19255 sells: 23864 %up: 53.45% mean: 0.000142018262163 std: 0.00245542544334 trade_z: 0.0578385560631 raw_accuracy: 53.45%	out-of-sample buys: 7051 sells: 6496 %up: 50.00% mean: -2.15840444262e- 05 std: 0.00309644125192 trade_z: -0.00697059710493 raw_accuracy: 50.00%
score:trade_z period:40 var_type:cat	in-sample buys: 12354 sells: 8333 %up: 54.62% mean: 0.000136713623136 std: 0.00276907788134 trade_z: 0.049371534133 raw_accuracy: 39.08%	out-of-sample buys: 8691 sells: 3654 %up: 49.92% mean: -9.18188358938e-05 std: 0.00316198866966 trade_z: -0.0290383190727 raw_accuracy: 33.57%
score:trade_z period:40 var_type:high_c at	in-sample buys: 2015 sells: 2355 %up: 100.00% mean: 0.00579306805769 std: 0.00198809484331 trade_z: 2.91387912261 raw_accuracy: 99.94%	out-of-sample buys: 4 sells: 42 %up: 34.78% mean: -0.0054199387771 std: 0.00979402467935 trade_z: -0.553392395318 raw_accuracy: 89.81%
score:defscr period:80 var_type:return	in-sample buys: 1591 sells: 41527 %up: 52.13% mean: 0.000202290361636 std: 0.00343027173033 trade_z: 0.058972109949	out-of-sample buys: 671 sells: 12873 %up: 50.76% mean: 0.000113799042776 std: 0.00423623708859 trade_z: 0.0268632374431
score:defscr period:80 var_type:updow n	in-sample buys: 19866 sells: 23253 %up: 57.20% mean: 0.000375409682137 std: 0.00341566092153 trade_z: 0.109908357639 raw_accuracy: 57.20%	out-of-sample buys: 6609 sells: 6938 %up: 49.24% mean: 1.95968768394e-06 std: 0.00423787700938 trade_z: 0.000462422028672 raw_accuracy: 49.24%
score:defscr period:80 var_type:cat	in-sample buys: 6014 sells: 22602 %up: 57.55% mean: 0.000543320836982 std: 0.00374409277785 trade_z: 0.145114148932 raw_accuracy: 45.41%	out-of-sample buys: 3353 sells: 6947 %up: 48.47% mean: - 0.000125151502016 std: 0.00446921068109 trade_z: - 0.028003043702 raw_accuracy: 33.87%
score:defscr period:80 var_type:high_c at	in-sample buys: 0 sells: 0 %up: 0.00% mean: nan std: nan trade_z: nan raw_accuracy: 89.82% in-sample buys: 340 sells: 42730	out-of-sample buys: 0 sells: 0 %up: 0.00% mean: nan std: nan trade_z: nan raw_accuracy: 89.82% out-of-sample buys: 203 sells: 13334
score:trade_z period:80 var_type:return score:trade_z	%up: 51.97% mean: 0.000189562040666 std: 0.0034290373917 trade_z: 0.0552814154565 in-sample buys: 19866 sells: 23253	%up: 50.48% mean: 0.000111482643611 std: 0.00423302544476 trade_z: 0.0263363981781 out-of-sample buys: 6609 sells: 6938
period:80	%up: 57.20% mean:	%up: 49.24% mean: 1.95968768394e-

var_type:updow	0.000375409682137 std:	06 std: 0.00423787700938 trade_z:
n	0.00341566092153 trade_z:	0.000462422028672 raw_accuracy:
	0.109908357639 raw_accuracy:	49.24%
	57.20%	
	in-sample buys: 1676 sells: 5643	
	%up: 56.36% mean:	out-of-sample buys: 657 sells: 1841
	0.000629920894034 std:	%up: 51.40% mean: -3.21058815118e-
score:trade_z	0.00438519056356 trade_z:	06 std: 0.00594408414948 trade_z: -
period:80	0.143647324992 raw_accuracy:	0.0005401316789 raw_accuracy:
var_type:cat	36.60%	35.20%
score:trade_z	in-sample buys: 0 sells: 3 %up:	out-of-sample buys: 3 sells: 0 %up:
period:80	100.00% mean: 0.00625971091405	0.00% mean: -0.0085180946834 std:
var_type:high_c	std: 0.000302156913806 trade_z:	0.00144391348868 trade_z: -
at	20.7167555268 raw_accuracy: 89.82%	5.89931096991 raw_accuracy: 89.82%

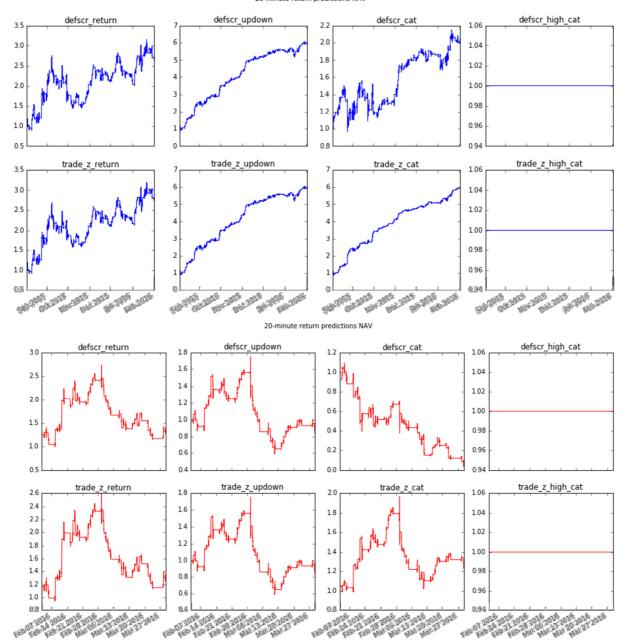
NAV curves for 5 minute and longer horizons, in-sample (blue) and out-of-sample (red)

5-minute return predictions NAV





20-minute return predictions NAV



40-minute return predictions NAV

