1. Supplementary materials

1.1. Hyperparameters of Models

1.1.1. Logistic regression

Parameters	**Values**
solver	newton-cg
penalty	none
the others	default in scikit-learn package

1.1.2. Artificial neural network

Parameters	**Values**
hidden_layer_sizes	(64, 64)
batch_size	64
learning_rate_init	0.001
the others	default in scikit-learn package

1.1.3. Support vector machine

Parameters	**Values**
kernel	poly
degree	4
the others	default in scikit-learn package

1.1.4. Decision tree

Parameters	**Values**
criterion	gini
max_depth	7
min_samples_split	5
min_samples_leaf	0.05
the others	default in scikit-learn package

1.1.5. Bagging

Parameters	**Values**
max_features	0.5
max_samples	1
n_estimators	660
the others	default in scikit-learn package

1.1.6. AdaBoost

Parameters	**Values**
n_estimators	200
learning_rate	0.1
the others	default in scikit-learn package

1.1.7. Random forest

Parameters	**Values**
n_estimators	180
max_depth	16
min_samples_split	5
min_samples_leaf	1
max_features	3
the others	default in scikit-learn package

1.1.8. Gradient boosting decision tree

Parameters	**Values**
n_estimators	1500
learning_rate	0.01
max_depth	11
min_samples_split	10
min_samples_leaf	2
max_features	8
the others	default in scikit-learn package

1.1.9. XGBoost

Parameters	**Values**
n_estimators	900
learning_rate	0.01
max_depth	9
colsample_bytree	0.5
subsample	0.8
gamma	0.2
reg_alpha	0.01
reg_lambda	1
the others	default in XGBoost package

1.1.10. LightGBM

Parameters	**Values**
n_estimators	700
learning_rate	0.01
max_depth	7
num_leaves	50
max_bin	100
min_child_samples	30
min_child_weight	0.001
colsample_bytree	0.8
subsample	0.8
reg_alpha	1
reg_lambda	0.7
the others	default in LightGBM package