Table 1. Optimized hyper-parameters, pre-processing and inner and outer cross-validation (CV) methods and software implementation of the classification algorithms.

Method	Hyper-Parameter	Inner CV	Outer CV	Scaling	Function
L2 Logistic Regression	C	5-fold, 100-repeats	100-repeats	MinMax	LogisticRegression
L1 SVM Linear Kernel	C	5-fold, 100-repeats	100-repeats	MinMax	LinearSVC
L2 SVM Linear Kernel	C	5-fold, 100-repeats	100-repeats	MinMax	LinearSVC
SVM RBF Kernel	C, gamma	5-fold, 100-repeats	100-repeats	MinMax	SVC
Decision Tree	max_depth, min_samples_split	5-fold, 100-repeats	100-repeats	MinMax	DecisionTreeClassifier
Random Forest	n_estimators, max_features	5-fold, 100-repeats	100-repeats	MinMax	RandomForestClassifier
XGBoost	n_estimators, colsample_bytree, learning_rate, subsample, max_depth, min_child_weight	5-fold, 100-repeats	100-repeats	MinMax	XGBClassifier