.1 Hyperparameters

Table 1 depicts the best set of hyperparameters found by Optuna in terms of AUC. For the SVM parameters, the class weight of the other class (high class) corresponds to $1 - t$ (binary classification). For the bootstrap aggregation (bagging) parameters, the number of estimators denotes the number of base estimators in the bagging ensemble. The fraction of training samples and training features denotes the maximal fraction of samples and features that should be randomly drawn and used for training, respectively. The use of sample weights denotes whether all samples were weighted equally, or proportionally to the inverse class frequency.

TABLE 1

Set of hyperparameters for the SVM and the bootstrap aggregation (bagging) used for obtaining the final results in our work grouped by the personality traits *openness to experience* (O), *conscientiousness* (C), *extraversion* (E), *agreeableness* (A), and *neuroticism* (N).

		O	C	E	A	N
SVM	Regularization Parameter C	$1.97 \cdot 10^{-4}$	204.04	$1.77 \cdot 10^{-3}$	$2.56 \cdot 10^{-8}$	$1.28 \cdot 10^{-7}$
	Class Weight t (low class)	0.517	0.689	0.604	0.368	0.295
	Stopping Tolerance tol	$5.263 \cdot 10^{-6}$	$1.273 \cdot 10^{-7}$	$5.53 \cdot 10^{-11}$	$5.474 \cdot 10^{-12}$	$3.656 \cdot 10^{-6}$
Bagging	Number of Estimators	9	8	9	20	14
	Fraction of Training Samples	49.6%	48.4%	35.3%	88.0%	96.4%
	Fraction of Training Features	94.2%	74.2%	35.0%	69.2%	44.7%
	Use Sample Weights	No	No	No	No	No