

# Data Model of Configure Systems



CONFIGURE INGESTION SYSTEM
+ configurationID :UUID + language :Language + labels :List<Label> + maxMissingSamples :Integer + requiredRecords :Integer + maxBufferSize :Integer + evaluationIP :IPAddress + preparationIP :IPAddress + phase :Phase

CONFIGURE DEVELOPMENT SYSTEM
+ configurationID :UUID + hyperparameters :Hyperparameters + maxIterations :Integer + validationThreshold :Double + testThreshold :Double + trainingPhase :TrainingPhase + overfittingTolerance :Double + phase :Phase

CONFIGURE PREPARATION SYSTEM
+ configurationID :UUID + ingestionIP :IPAddress + classificationIP :IPAddress + segregationIP :IPAddress + missingSampleCorrectionMethod :CorrectionMethod + outlierThreshold :Double + phase :Phase

CONFIGURE CLASSIFICATION SYSTEM
+ configurationID :UUID + classifiers :List<Classifier> + evaluationIP :IPAddress + clientSideIP :IPAddress

CONFIGURE CLIENT-SIDE SYSTEM
+ configurationID :UUID + address :String + port :Integer + token :String + security :SecurityMode

CONFIGURE SEGREGATION SYSTEM
+ configurationID :UUID + developmentIP :IPAddress + messagingIP :IPAddress + preparationIP :IPAddress + maxImbalanceTolerance :Double + trainingPercentage :Double + validationPercentage :Double + testingPercentage :Double + requestedSessions :Integer + thresholdSessions :Integer

CONFIGURE EVALUATION SYSTEM
+ configurationID :UUID + maximumErrorThreshold :Double + maximumConsecutiveErrorThreshold :Double + minimumNumberLabels :Integer

LABEL
+ emotion :Emotion + confidence :Double

HYPERPARAMETERS
+ min_neurons :Integer + max_neurons :Integer + step_neurons :Integer + min_layers :Integer + max_layers :Integer + step_layers :Integer

CLASSIFIER
+ classifierID :UUID + name :String + hyperparameters :Hyperparameters + minimumConfidence :Double

<<enumeration>>
EMOTION

ANGRY  
HAPPY  
NEUTRAL  
SAD  
SURPRISE

<<enumeration>>
PHASE

INFERENCE  
DEVELOPMENT  
EVALUATION

<<enumeration>>
LANGUAGE

ENGLISH  
CHINESE  
ITALIAN

<<enumeration>>
CORRECTION METHOD

MEAN  
MEAN\_BY\_CLASS  
5-NN\_IMPUTER

<<enumeration>>
TRAINING PHASE

VALIDATION  
TESTING

<<enumeration>>
SECURITY MODE

TLS  
PLAIN  
SSL  
mTLS