Data Model of Configure Service

CONFIGURE INGESTION SYSTEM

+ configurationID :UUID
+ annotations :List<Annotation>
+ audios :List<AudioSensor>
+ calendars :List<Calendar>
+ profiles :List<Profile>
+ language :Language
+ labels :List<Label>
+ maxMissingSamples :Integer
+ requiredRecords :Integer
+ maxBufferSize :Integer
+ phase :Phase

CONFIGURE DEVELOPMENT SYSTEM

+ configurationID :UUID
+ hyperparameters :Hyperparameters
+ iterations :Integer
+ validationThreshold :Double
+ testThreshold :Double
+ trainingPhase :TrainingPhase
+ phase :Phase

CONFIGURE CLIENT-SIDE SYSTEM

+ configurationID :UUID
+ address :String
+ port :Integer
+ token :String
+ security :SecurityMode

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>

CONFIGURE SEGREGATION SYSTEM

+ configurationID :UUID
+ developmentIP :IPAddress
+ messagingIP :IPAddress
+ preparationIP :IPAddress
+ maxImbalanceTolerance :Double
+ trainingPercentage :Double
+ validationPercentage :Double
+ testingPercentage :Double

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