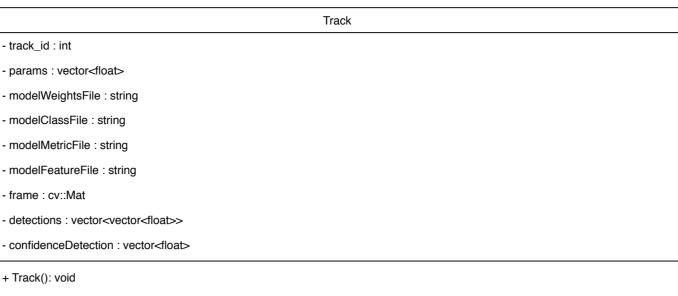## Detection

- confThreshold : float
- nmsThreshold : float
- inpWidth : float
- inpHeight : float
- modelWeightsFile : string
- modelConfigFile : string
- modelClassFile : string
- frame : cv::Mat
- frame_id : int
- detectionsDict : map<string, vector<vector<float>>>
- detections : vector<vector<float>>
- confidenceDetection : vector<float>

+ Detection(): void
+ initializeParams(confThreshold: float, nmsThreshold: float, inpWidth: float, inpHeight: float): void
+ loadModelandLabelClasses(modelWeightsFile: string, modelConfigFile: string, modelClassFile: string) : void
- readInput(): cv::Mat
- processFrameforHuman(frame: cv::Mat): Bool
- drawRedBoundingBox(coordinates: vector<float>): void
- storeFoundCoordinates(frame_id: int, detections: vector<vector<float>>, confidenceDetection: vector<float>): void
+ getDetections(): vector<vector<float>>
+ getConfidence(): vector<float>
+ getAllDetectionsList(): map<string, vector<vector<float>>>
+ ~Detection(): void

Track

- track_id : int
- params : vector<float>
- modelWeightsFile : string
- modelClassFile : string
- modelMetricFile : string
- modelFeatureFile : string
- frame : cv::Mat
- detections : vector<vector<float>>
- confidenceDetection : vector<float>

+ Track(): void
+ initializeParams(params: vectror<float>): void
+ initializeFeatureExtractor(modelWeightsFile: string, modelClassFile: string, modelMetricFile: string, modelFeatureFile: string): void
- runTrackerAlgorithm(frame: cv::Mat, detections: vector<vector<float>>, confidenceDetection: vector<float>): void
- drawGreenBoundingBox(coordinates: vector<float>): void
+ getCoordinatesInCameraFrame(coordinates: vector<float>): vector<float>
+ ~Track(): void

DataLoader

- method : string
- frame : cv::Mat
- sequenceOfFrames : vector<cv::Mat>
- path: string

+ DataLoader(): void
+ setInputStreamMethod(path: string) : void
+ getInputStreamMethod(): string
+ getFrame(): cv::Mat
+ ~DataLoader(): void