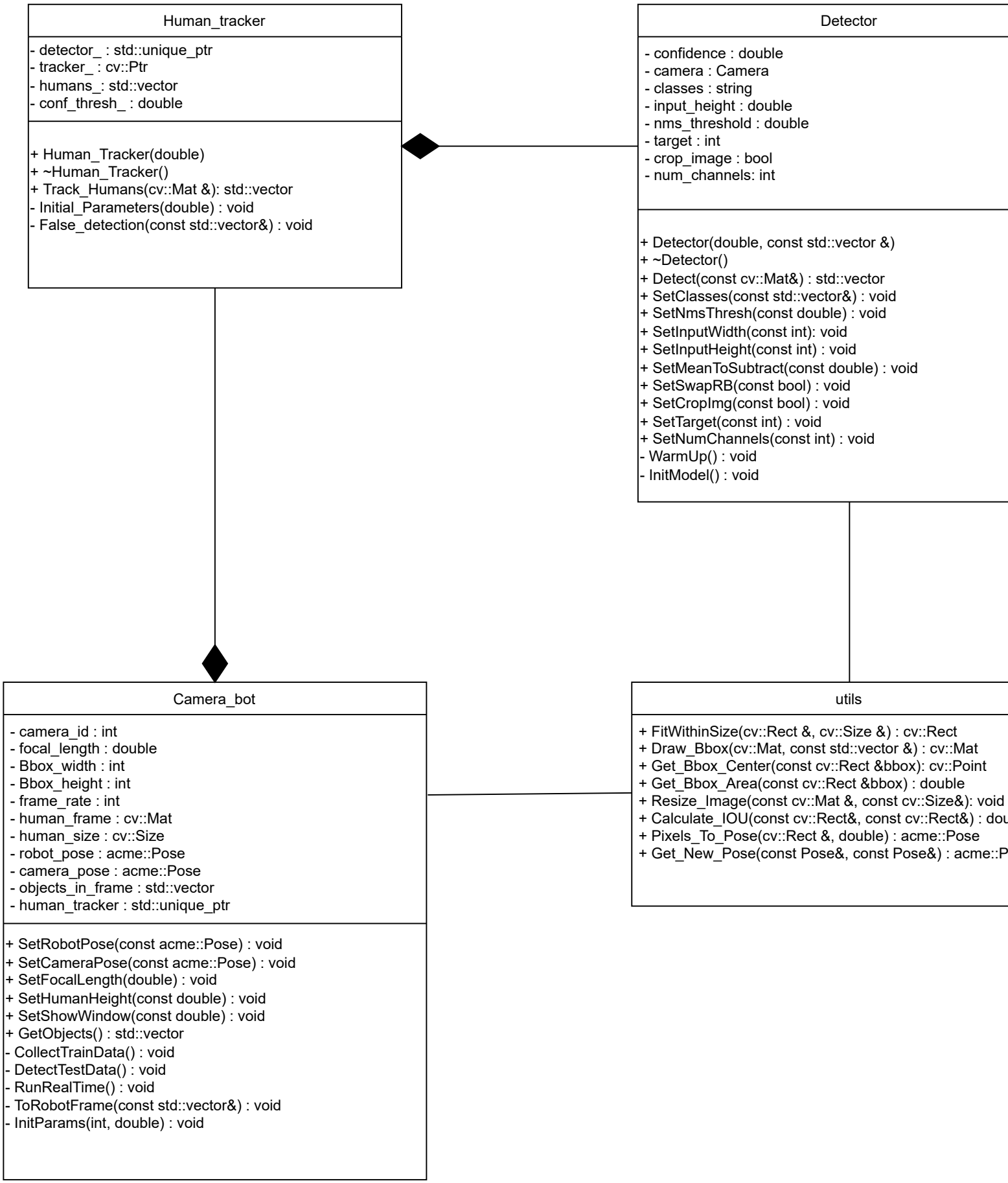
UML CLASS DIAGRAM


Human_tracker
- detector_ : std::unique_ptr
- tracker_ : cv::Ptr
- humans_: std::vector
- conf_thresh_ : double
+ Human_Tracker(double)
+ ~Human_Tracker()
+ Track_Humans(cv::Mat &): std::vector
- Initial_Parameters(double) : void
- False_detection(const std::vector&) : void
Detector
- confidence : double
- camera : Camera
- classes : string
- input_height : double
- nms_threshold : double
- target : int
- crop_image : bool
- num_channels: int
+ Detector(double, const std::vector &)
+ ~Detector()
+ Detect(const cv::Mat&) : std::vector
+ SetClasses(const std::vector&) : void
+ SetNmsThresh(const double) : void
+ SetInputWidth(const int): void
+ SetInputHeight(const int) : void
+ SetMeanToSubtract(const double) : void
+ SetSwapRB(const bool) : void
+ SetCropImg(const bool) : void
+ SetTarget(const int) : void
+ SetNumChannels(const int) : void
- WarmUp() : void
- InitModel() : void
Camera_bot
- camera_id : int
- focal_length : double
- Bbox_width : int
- Bbox_height : int
- frame_rate : int
- human_frame : cv::Mat
- human_size : cv::Size
- robot_pose : acme::Pose
- camera_pose : acme::Pose
- objects_in_frame : std::vector
- human_tracker : std::unique_ptr
+ SetRobotPose(const acme::Pose) : void
+ SetCameraPose(const acme::Pose) : void
+ SetFocalLength(double) : void
+ SetHumanHeight(const double) : void
+ SetShowWindow(const double) : void
+ GetObjects() : std::vector
- CollectTrainData() : void
- DetectTestData() : void
- RunRealTime() : void
- ToRobotFrame(const std::vector&) : void
- InitParams(int, double) : void
utils
+ FitWithinSize(cv::Rect &, cv::Size &) : cv::Rect
+ Draw_Bbox(cv::Mat, const std::vector &) : cv::Mat
+ Get_Bbox_Center(const cv::Rect &bbox): cv::Point
+ Get_Bbox_Area(const cv::Rect &bbox) : double
+ Resize_Image(const cv::Mat &, const cv::Size&): void
+ Calculate_IOU(const cv::Rect&, const cv::Rect&) : dou
+ Pixels_To_Pose(cv::Rect &, double) : acme::Pose
+ Get_New_Pose(const Pose&, const Pose&) : acme::P