Possible **Libraries & Modules** that can be used to develop object detection for RoboControl:

- ❖ **OpenCV**
  - ➢ Modules:
    - ■ **cv2.HOGdescriptor:** Can be used for "pedestrian" object detection
    - ■ **cv2.ml:** Machine learning module of OpenCV, used for training and object detection models

- ❖ **TensorFlow**
  - ➢ Modules:
    - ■ **tensorflow.keras:** Create deep learning models for object detection
    - ■ **tensorflow.image:** Used for image processing: resizing, cropping, normalization, etc.
    - ■ **tensorflow.object_detection:** Provides pre-trained object detection models and tools to train custom detection models

- ❖ **SciPy**
  - ➢ Modules:
    - ■ **scipy.optimize:** Provides optimization functions for object detection and tracking (finding optimal trajectories)
    - ■ **scipy.ndimage:** Provides various image processing functions: filters, morphology: segmentation