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Application for Determination of User Interaction with the Objects Using a Camera

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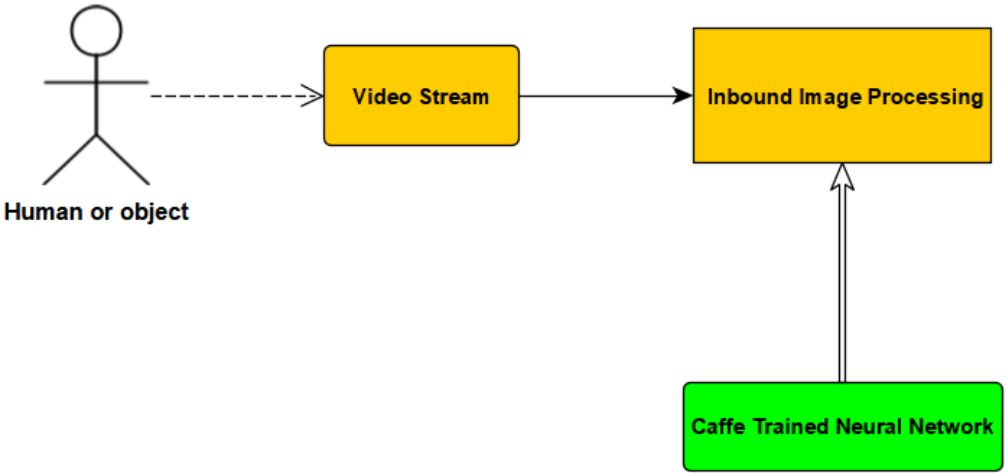
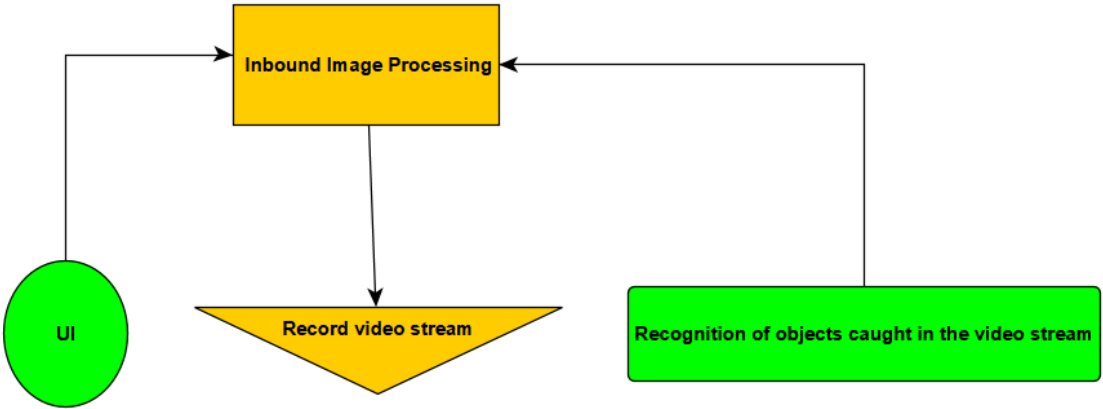
Problem: Detection of a person and his interaction with the environment

- Help to quickly identify, and most importantly, quickly solve problems that arise in the production process
- The use of such systems in production is defined in order to ensure safety and access control and labor protection.
- The primary tasks here are control over personnel actions, technological processes, monitoring of the production area.
- They significantly simplify the work of the staff.

Overall architecture



Inbound Image Processing architecture



What did i use?

1. Python 3.7.
2. OpenCV - open source computer vision library. It's application finds its place for such languages. The library includes various algorithms for computer vision, image recognition, working in real time.
3. Caffe - supports many types of machine learning, aimed primarily at solving classification problems and image segmentation. Caffe provides convolutional neural networks, long short-term memory and fully connected neural networks.

Implemented Demo

- Object Detection module
- Recording module