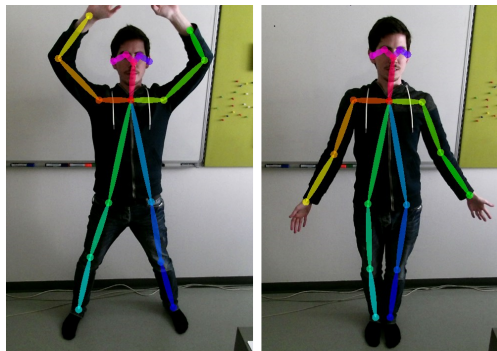


Action Recognition

In computer vision, action recognition refers to the task of classifying actions based on video. In this exercise the repetitions of an activity (of your choice) should be counted automatically (E.g: Jumping Jacks, Push-ups, Squats, etc.)

- Record Videos
- Extract Joint Locations
- Build a Classifier

In a first step you should record videos of the activity you want to analyze. Keep in mind to pick a perspective that suits your strategy. Use the Openpose¹ Framework to extract skeleton keypoints from your videos. Finally, create a simple classifier that is able to detect key poses of the chosen action and count its repetitions. Finally evaluate the approach on your videos, and discuss the chosen approach, results and difficulties in a short report (1-2 pages).



Openpose

Openpose is provided on the respective Github repository as code and also as a binary demo². You can either use the binary demo to generate json/xml encoded person keypoint descriptors or compile and use the C++ framework. For further details please read the documentation provided on Github.

¹<https://github.com/CMU-Perceptual-Computing-Lab/openpose>

²<https://github.com/CMU-Perceptual-Computing-Lab/openpose/blob/master/doc/installation.md>