

*no camera as of yet

3.1

Tuesday, 25 August 2020 2:09 PM

Feedback:

- Timeline

Find datasets for the physio exercises

- <https://www.researchgate.net/publication/322414335>
A Data Set of Human Body Movements for Physical Rehabilitation Exercises

Our main motivation for creating the presented data set was the identified lack of publically available comprehensive data sets of physical therapy movements. Currently, there are a large number of publically available data sets related to general human movements [13] that are extensively used for tasks like action recognition, gesture recognition, pose estimation, or fall detection. Many of these data sets employ optical motion capturing systems for recording the movements, e.g., CMU Multi-Modal Activity (CMU-MMAC) [14], and Berkley MHAD (Multi-Modal Human Action Dataset) [15]. Likewise, numerous data sets of general human movements have been created by using the Microsoft Kinect sensor, such as the MSR (Microsoft Research) Action3D data set [16] and the previously mentioned UTD-MHAD set [11].

[the goal of the research at this stage is to employ the data for mathematical modeling of rehabilitation movements in general, and for assessment of the deviation of motion trajectories from the derived movement models.]

Dataset link: <https://webpages.uidaho.edu/ui-prmd/>

Also mentions lots of other datasets to consider

- <https://ieeexplore-ieee-org.libproxy1.nus.edu.sg/document/6819433>
 - Similar to what we doing but they use RGBD cameras
 - Bayesian network to train

- <https://arxiv.org/pdf/1608.09005.pdf>
To measure quality of the exercises using skeleton data?

- <https://archive.ics.uci.edu/ml/datasets/MEx>
The MEx Multi-modal Exercise dataset contains data of 7 different physiotherapy exercises, performed by 30 subjects recorded with 2 accelerometers, a pressure mat and a depth camera.
+ download link included

frequently used for prevention or management of Mus-culoskeletal pain. Each exercises is annotated with a starting position and anaction

- <https://stackoverflow.com/questions/54171922/machine-learning-question-regarding-processing-of-rgb-streams-and-involved-com>
General flow of how to process the info from the camera

