Project instructions

Prerequisite:

1. Matlab 2017b: Image processing and Computer vision toolboxes
2. Python version 3.6
3. OpenPose

Requirements:

1. Download OpenPose repo from <https://github.com/ildoonet/tf-pose-estimation>
2. Follow repo’s instruction (can be found in github link above)
3. Go to the requirements.txt:
   1. Comment out “ast”
   2. Add git+<https://github.com/yijunyu/needles.git> #this may not be required
4. In Skeletonize.py change your images location for your own use,

current implementation use our own images.

Also provide the kinect skeleton file for comparison.

Running Skeletonize:

1. Run Skeletonize python script
   1. A mat file is generated
   2. A matlab viewer is opened
   3. A 3d skeleton model is presented on screen

Optional:   
Open Matlab and run Skeletonize.m file, make sure the calibration mat file is on the ‘example’ subfolder as the script (if you did not perform calibration, go to calibration step)

Calibration:

1. Open your matlab 2017b IDE
2. Go to Apps tab and choose “Stereo Camera Calibrator” app
3. Load your left and right images to the app
4. Run the calibration , choose the correct size of the checkerboard square
5. Export the calibration data to the script folder