

Openpose

Created by George Wang, last modified about 3 hours ago

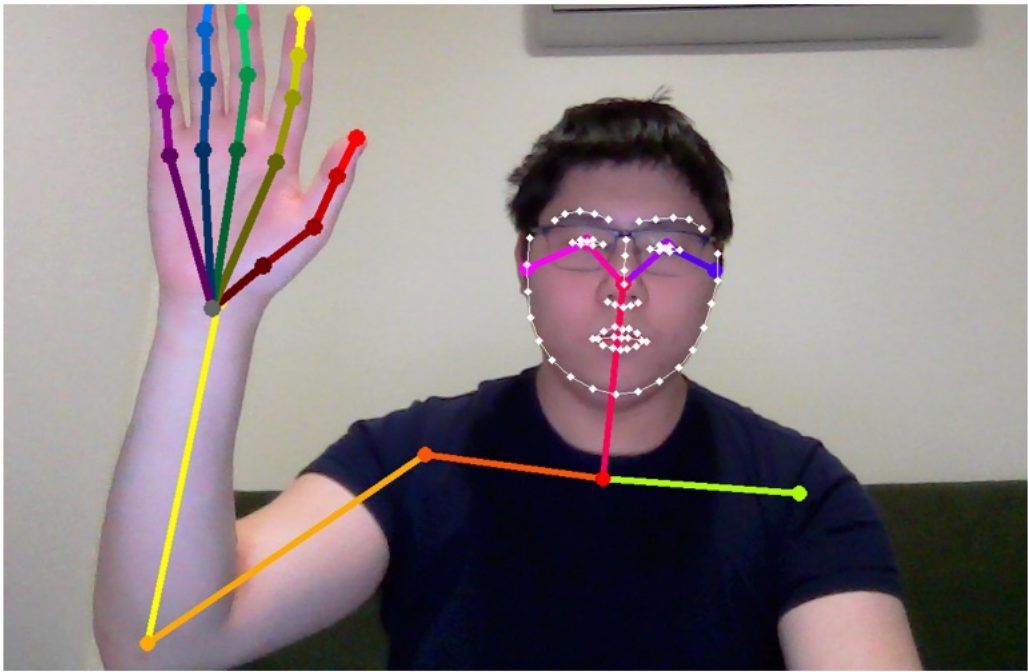
Openpose link: <https://github.com/CMU-Perceptual-Computing-Lab/openpose>

Prerequisites

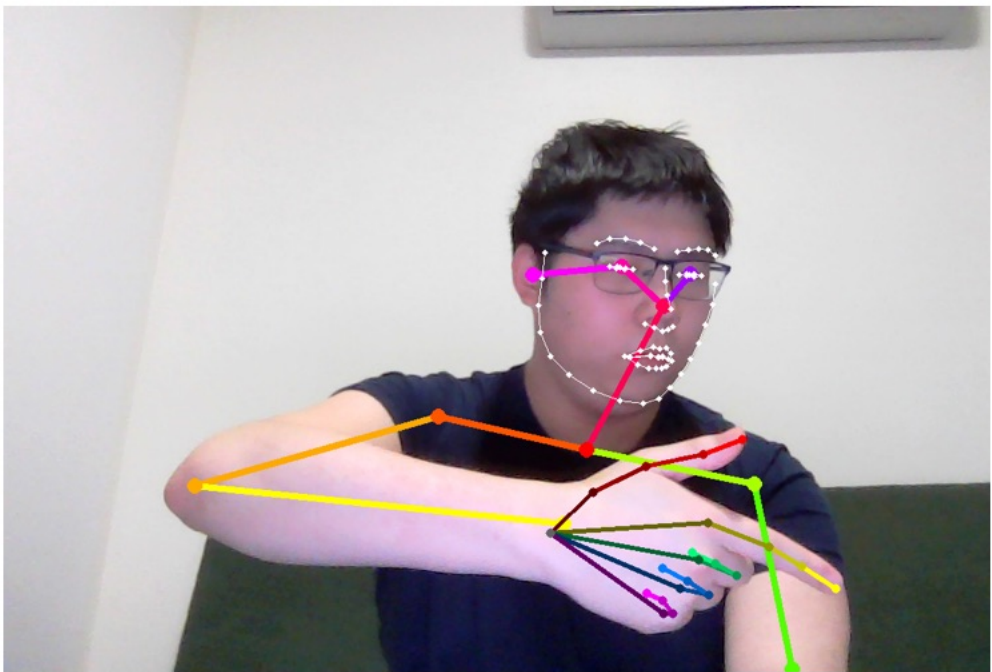
- CMake GUI: sudo apt-get install cmake-qt-gui
- Nvidia GPU: Update to latest version
- CUDA: Download from website: <https://developer.nvidia.com/cuda-11-7-1-download-archive>
- cuDNN: Download from website: <https://developer.nvidia.com/cudnn>
- Caffe: sudo bash ./scripts/ubuntu/install_deps.sh
- OpenCV: sudo apt-get install libopencv-dev
- Make prerequisites
 - CMake config: sudo apt install protobuf-compiler libgoogle-glog-dev
 - Openpose: sudo apt install libboost-all-dev libhdf5-dev libatlas-base-dev
- Python prerequisites
 - sudo apt-get install python3-dev
 - sudo pip3 install numpy opencv-python

Openpose commands:

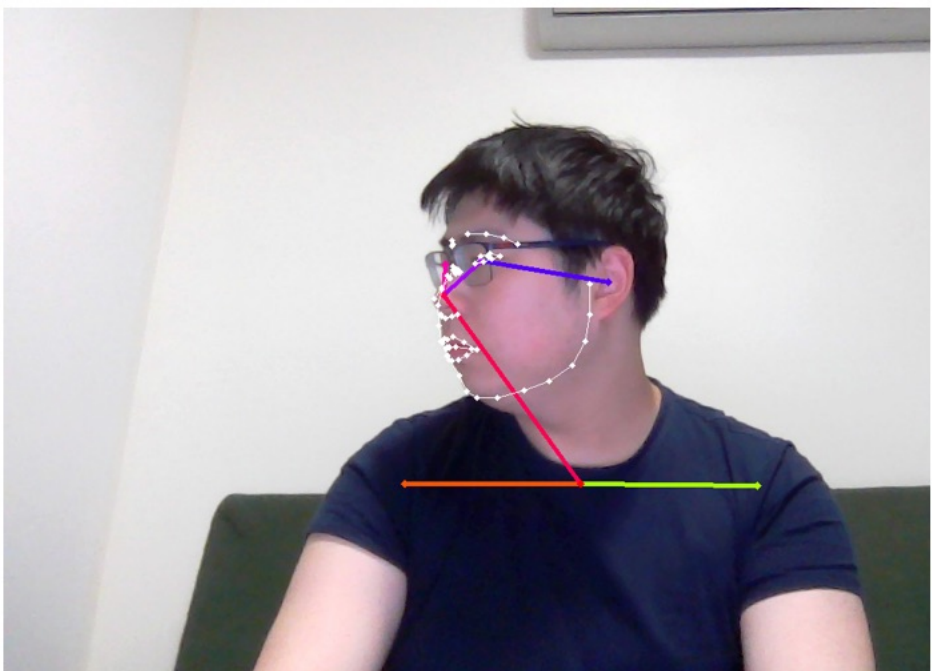
- Running Openpose: ./build/examples/openpose/openpose.bin
- Openpose flags:
 - Additional keypoints:
 - --face: Adds facial keypoints
 - --hand: Adds hand keypoints
 - Input:
 - --video <path_to_video>: Runs openpose on a video
 - --image_dir <path_to_folder>: Runs openpose on all images within a folder
 - --camera <camera_number>: Selects which camera to run, if --video and --image_dir flags are not used
 - Output:
 - --write_video <path_to_video>: Records video to the path specified
 - --write_images <path_to_folder>: Records images in the folder path specified



Openpose hand and face keypoint detection



Openpose estimation of finger keypoints



Openpose face keypoint detection (sideview)