**Human pose estimation project work**

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**Status : (Work In Progress)**

* **Completed**:
  + Tutorial 2 Canny Edge Detection and Object tracking using OpenCV bundled tutorials
* **In progress:** 
  + Tutorial 3 SURF feature detection

**Task 1**

**Canny Edge Detection snippets:**

A large brick building

Description automatically generated

**Original image**

A picture containing black, white, computer

Description automatically generated

**High threshold canny edge detection**

A picture containing building, photo, sitting, sign

Description automatically generated

**Low threshold canny edge detection**

**New concepts learned:**

* Sobel filter theory
* Gaussian filter implementation

**TODO:**

* N/A

**Resources:**

* [Online tutorial code URL](https://docs.opencv.org/2.4/doc/tutorials/imgproc/imgtrans/canny_detector/canny_detector.html)

**Task 2**

**Object tracking snippets:**

A person standing on a beach

Description automatically generated

**Object tracking using Boosting tracker**

A picture containing person, man, cellphone, looking

Description automatically generated

**Object tracking using CSRT tracker**

A person standing in front of a beach

Description automatically generated

**Object tracking using KCF tracker with known intermittent tracking error**

A person looking at the camera

Description automatically generated

**Object tracking using MedianFlow tracker with known intermittent tracking error**

A screen shot of a person

Description automatically generated

**Object tracking using MIL tracker**

A person standing on a beach

Description automatically generated

**Object tracking using Mosse tracker with known intermittent tracking error**

A person that is standing in the dark

Description automatically generated

**Object tracking using TLD tracker**

**GOTURN Tracker was still unstable in OpenCV 3.4.10**

**New concepts learned:**

* Object tracking flow with OpenCV API on video feeds with different tracker type algorithms

**TODO:**

* Need to build pose estimation feature by extending Object tracking codebase
* Investigate issues with couple of tracker implementations bundled with OpenCV 3.4