

High Level Intuition Version₀

Gohil Dwijesh

9 December 2019

1 Algorithm Intuition

- Consider real-time sequence of frames.
- Consider the following terminologies.
 - **Key objects:** Human spends a significant amount of time with certain kind of objects. For example automobile, house while opening the door, etc. These objects are termed as key objects.
 - **Actors:** Human opens the door lock using the key. Here Human and key are the actors. The key object is the door. A matter that deals with the key objects are termed as actors.
 - **Hot spots:** Actors act on key objects at specific locations. This location is called the hot spot. For example, hot spot for the door will be the location of the door-lock.
- Design a model that incorporates the following features. Abnormal vs normal.
 - **Time taken:** Time taken to open the door using keys and break the door lock using rod are significantly different.
 - **Actors:**
 - * **Human pose:** Pose of a robber breaking the door lock using rod is different from the pose of a owner opening the door using the keys.
 - * **Object used:** Use of a rod to break the door vs use of the key to open the door.
 - **Hot spot:** Most of the times robbers try to fit the rod or any thin object into gap and apply the force to break the door lock. So the location of human-object interaction also matters.
- While inferring an event, if the behavior is not classified as normal then inform the owner about the situation.