CS 63500
Spring 2018
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Due: Monday January 29 at midnight

Assignment 1—A basic application

In a nutshell

Implement a basic application that loads a video, finds the same object in each frame of the video, marks the location of the object in each frame, and saves the video with the marked object position.

Details

1. Take a short video (min 5s) of an object with a salient/unique color. For example, you could take a video of a tennis ball rolling on a table, or stationary on a table as you move the camera.
2. Write an application that
    a. Loads the video
    b. Iterates over all frames; for each frame
        i. Finds the object with basic pixel level color comparisons, relying on the uniqueness of the object color within the frame
        ii. Marks the object with a frame-aligned bounding rectangle
    c. Saves the video with the object position marked
3. GUI
    a. A button that loads the video
    b. A button that processes the video, showing the frames as they are processed
    c.

Turn in via blackboard

An archive that contains:

- Your source code
- Your binaries
- Your input video
- Your output video