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
   1. Loads the video
   2. Iterates over all frames; for each frame
      1. Finds the object with basic pixel level color comparisons, relying on the uniqueness of the object color within the frame
      2. Marks the object with a frame-aligned bounding rectangle
   3. Saves the video with the object position marked
3. GUI
   1. A button that loads the video
   2. A button that processes the video, showing the frames as they are processed

***Turn in via blackboard***

An archive that contains:

* Your source code
* Your binaries
* Your input video
* Your output video

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