

Homework #4

Face Detection and Face Recognition

- Out: Tuesday March 3, 2015
- Due: Thursday April 2, 2015

*HCI/CprE/ComS 575: Computational Perception
Iowa State University*

Part 1: Counting People

- A) Use openCV's face detection demo plus some additional code that you will have to write to count how many people pass in front of the camera in the sidewalk video1. The video is posted on the class web page.
- B) Do the same for video 2.

Part 2: Eigenfaces in OpenCV

Implement the eigenfaces algorithm in openCV. To test your algorithm you can use the same face images that were used for the matlab demo during the lecture (posted on the class web site).

Part 3: Extra Credit

- a) Use your eigenfaces code in combination with the face detection code from part 1 to locate three specific individuals in the crowd. The three images are posted on the class web page.

- b) Do the same for video2.

That' s it.

Good Luck!