EE 146 COMPUTER VISION

Department of Electrical & Computer Engineering
University of California at Riverside
Tues., Thurs. 3:30 - 4:50pm, Online Class, WCH 142, Winter Quarter 2022
Labs Wed 8:00 --10:50am, Online; Thurs. 11:00 -- 1:50pm, Online

EE 146 Lab 8, February 23 & 24, 2022

Goal: Understand Scale Invariant Feature Transform.

Problem 1: Scale Invariant Feature Transform (SIFT)

Select some interesting images with multiple objects (or use the images supplied with the lab). Generate additional images from the given images under some 1) scale, 2) pose, 3) illumination and 4) partial occlusion variations.

Use SIFT transform to

(a) Compute interesting robust features, and
(b) Use them for matching with images under (i) scale, (ii) pose, (iii) illumination and (iv) partial occlusion variations.

Comment on the quality of results (successful matches) and computation time. When does this algorithm fail?

Submit your matching results.

The link for a tutorial is given below:

http://aishack.in/tutorials/sift-scale-invariant-feature-transform-introduction/