Thomas Bong

CSE 473

Professor Chen

November 22nd 2016

Final Project Status Report

1.Project Team Information:

a) I’m on my own group. Thomas Bong, 50126179. I’ve been assigned project 3, Disparity for Stereo Vision.

2.

a)For this project, the main idea is to estimate the depth of the real object in the image by comparing the distance of 2 images, such as left image and right image. Then the comparison of distances is called disparity. By generating disparity maps, one can estimate the depth of the object.

b) the first task is to perform block matching with 3x3 and 9x9 block. Then we need to generate a disparity map for each block, using the Sum of Squared Differences Calculation. Then we get 2 disparity maps. With those disparity maps, we need to calculate the Mean Squared Error. Then, we use dynamic programming approach to get the longest common subsequent pixel value of the two images(from left to right) to get the disparity map. Repeat the dynamic programming approach from the right image to the left image. And calculate the Mean Squared Error for the two disparity maps generated by dynamic programming.

3.

2 INPUT IMAGES

BLOCK MATCHING

3X3

DYNAMIC PROGRAMMING

FOR DISPARITY MAP

BLOCK MATCHING

9X9

2

1

4

6

7

5

3

OUTPUT

(BLOCK MATCHING

9X9)

OUTPUT

(BLOCK MATCHING

3X3)

OUTPUT OF

DYNAMIC

PROGRAMMING

DISPARITY MAP

FINAL REPORT

8

4. I’m on an individual team

5.

Nov 7 – Nov 14 : Block Matching 3x3 (Already started)

Nov 14 – Nov 21 : Block Matching 3x3 and Final Project Status Report

Nov 21 – Nov 28 : Block Matching 3x3 and 9x9

Nov 28 – Dec 5: Dynamic Programming approach

Dec 5 – Dec 12: Finish Project/Final Project Report