**Computer Vision HW4 Report**

Student ID: B10901074

Name: 曾柏穎

**Visualize the disparity map of 4 testing images.**

|  |  |
| --- | --- |
| Tsukuba | Venus |
|  |  |
| Teddy | Cones |
|  |  |

**Report the bad pixel ratio of 2 testing images with given ground truth (Tsukuba/Teddy).**

|  |  |
| --- | --- |
|  | bad pixel ratio |
| Tsukuba | 3.56% |
| Teddy | 9.78% |

**Describe your algorithm in terms of 4-step pipeline.**

1. 做census transform，將原圖依照kernel大小做出kernel\_size\*kernel\_size-1的bitmap，再計算不同disparity的census cost
2. 使用jointbilateral filter讓census cost更smooth
3. 選擇最小census cost對應的disparity
4. 將disparity超出邊界以及left-right check不同的當作hole，取相鄰最近的disparity當作當前pixel的disparity，並在最後加上一個weighted median filter