

Name (netid): Your Name (Your Netid)
CS 445 - Project 5: Image Based Lighting

Complete the claimed points and sections below.

Total Points Claimed **[] / 250**

Core

- | | |
|---|----------|
| 1. Stitch two key frames | [] / 20 |
| 2. Panorama using five key frames | [] / 15 |
| 3. Map the video to the reference plane | [] / 15 |
| 4. Create background panorama | [] / 15 |
| 5. Create background movie | [] / 10 |
| 6. Create foreground movie | [] / 15 |
| 7. Quality of results and report | [] / 10 |

B&W

- | | |
|-------------------------------|----------|
| 8. Insert unexpected object | [] / 15 |
| 9. Process your own video | [] / 20 |
| 10. Smooth blending | [] / 30 |
| 11. Improved fg/bg videos | [] / 40 |
| 12. Generate a wide video | [] / 10 |
| 13. Remove camera shake | [] / 20 |
| 14. Make streets more crowded | [] / 15 |

1. Stitch two key frames

Include

- Display of image frames 270 and 450 with the red plot lines showing corresponding regions
- Printout of 3x3 homography matrix normalized so that the largest value is 1

2. Panorama using five key frames

Include your panoramic image

3. Map the video to the reference plane

Include:

- Link to your video
- Display frame 200 of your video
- Briefly explain how you solved for the transformation between each frame and the reference frame

4. Create the background panorama

Include:

- Picture of the background panorama
- Explain your method of computing the background color of a pixel

5. Create the background movie

Include:

- Link to your video
- Display frame 200 of your video

6. Create the foreground movie

Include:

- Link to your video
- Display frame 200 of your video

7. Quality of results / report

Nothing extra to include (scoring: 0=poor 5=average 10=great).

8. Insert unexpected object

Include link to your video.

9. Process your own video

Include:

- Background image
- Link to background video
- Link to foreground video

10. Smooth blending

Include panoramic image from part 2 with better blending

11. Smooth blending

Include panoramic image from part 2 with better blending

12. Generate a wide video

Include link to your video

13. Remove camera shake

Include link to your stabilized video

14. Make street more crowded

Include link to your video

Acknowledgments / Attribution

List any sources for code or images from outside sources