

# COMS W4731 Computer Vision, Homework 4

Due: Nov 7th 2018, 2:40 PM

This homework contains one programming challenge. All submissions are due at the beginning of class on November 7th, 2018.

## What you need to submit:

Compressed into a `<uni>.HW4.zip`:

1. `<uni>.ipynb`
2. `output/`
  - (a) `test1.png, test2.png, test3.png, test4_blend.png, test4_overlay.png, test5.png`
3. `part6/`
  - (a) (input images used for part 6)
  - (b) (output image for part 6)

## Stitching Problem

In this homework, you will build a stitching app. You will find all of the instructions in `hw4.ipynb`. Below in this PDF are the expected results for each part, with the exception of Part 6, which will be different for everyone.

*This homework was designed by James Shin and Xiaoning Wan under the supervision of Carl Vondrick. We gratefully acknowledge several instructors for course material: Shree Nayar, Antonio Torralba, William Freeman, Deva Ramanan, Kristen Grauman, Alyosha Efros, James Hays, Fei-Fei Li, Jia Deng.*

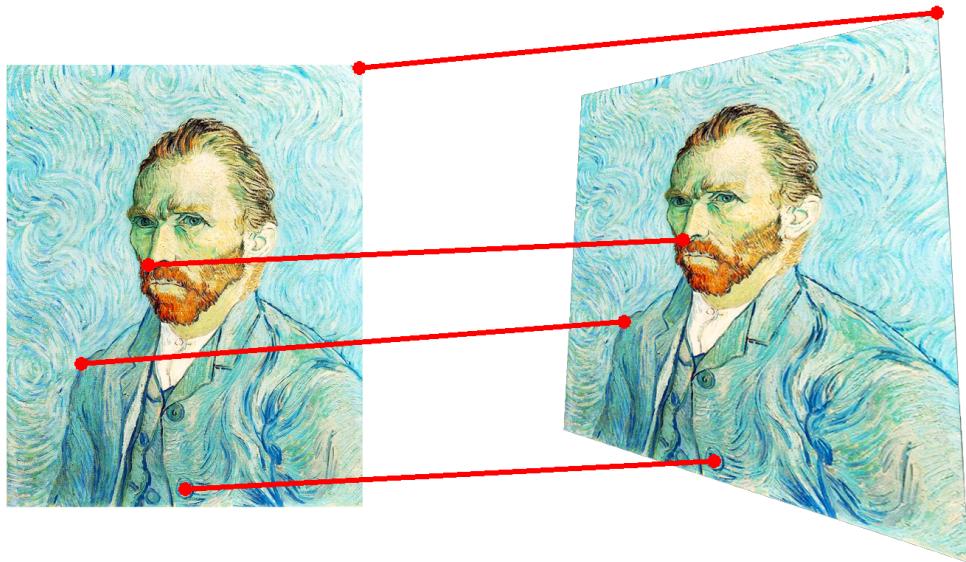


Figure 1: Part 1 output to test homographies

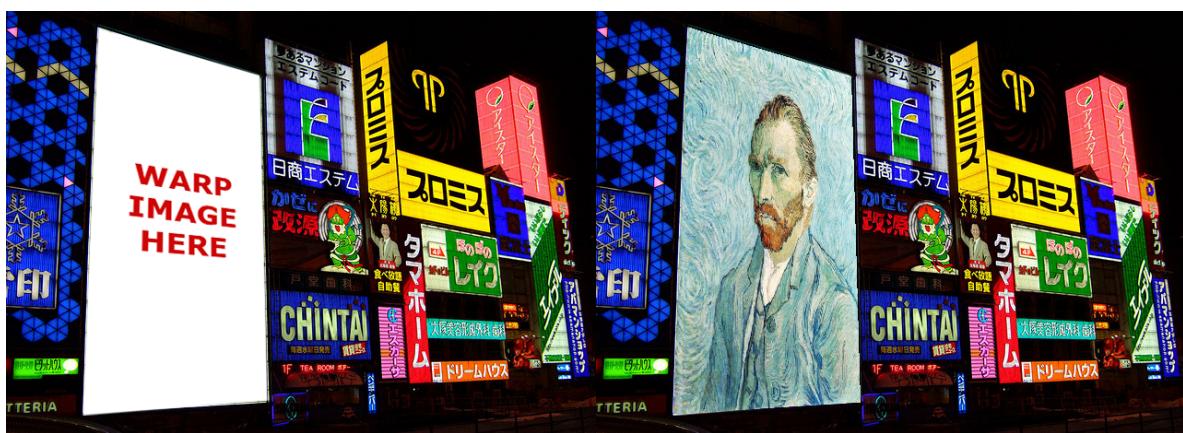


Figure 2: Part 2 output to test backward warping



Figure 3: Part 3 to test RANSAC



Figure 4: Part 4 to test weighted blending



Figure 5: Part 4 to test overlay blending

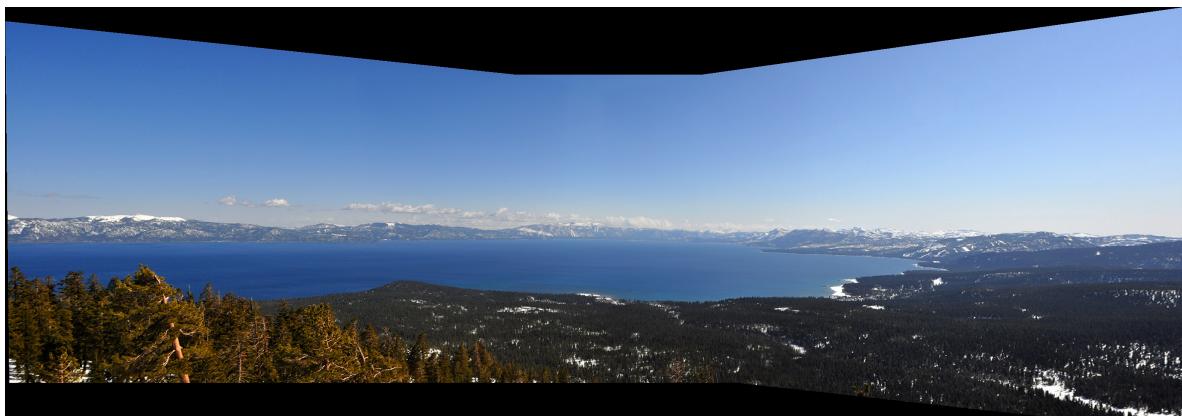


Figure 6: Part 5 to stitch the final panorama