

# CS 91R: The Computational Image

## Assignment 7: Image Stitching II

DUE March 25th at 11:59 PM

This is an open-ended creative lab, think of it as warm-up for the final project.

### 1 Do Something Fun with Homographies

1. Stitch together multiple images (a panorama):
  - different views of a planar surface
  - rotating about a single point
2. Automatically find the target quadrangle(s).
  - The `opencv` library included in this repo supports `findChessboardCorners`.

```
let src = cv.imread(grid.canvas);
let gray = new cv.Mat();
cv.cvtColor(src, gray, cv.COLOR_BGR2GRAY, 0);
let gridCorners = new cv.Mat();
let cornersS = new cv.Size(9, 6);
cv.findChessboardCorners(gray, cornersS, gridCorners)
print(gridCorners);
src.delete();
gray.delete();
```
3. Some other fun application!

### 2 Learning Objectives

- use homographies to apply arbitrary 2D-geometry transformations
- use `opencv` for some computer vision tasks

### 3 Deliverables

1. Commit the JavaScript `sketch.js` to the repo.
2. Write the reflection (as a markdown document named `reflection.md`) about what you were able to accomplish in this lab. Don't forget the collaboration statement!