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CS585 Challenge Update

April 19th, 2022

Challenge Update

I successfully completed the skeleton for the whole challenge, with several versions:

- Using cv2.findEssentialMat and cv2.recoverPose (1)
- Not using cv2.findEssentialMat:
    - Using cv2.recoverPose (2)
    - Not using cv2.recoverPose (3)

Using opencv (1) is currently performing significantly better (MSE ~ 70 for the provided sequence), compared to the one without opencv (MSE ~ 119) (2) & (MSE ~ 318)(3). For (2), my non-cv findEssentialMat with 8 points is taking way longer than the cv2 version, and it even takes way way longer with 1000 iterations of ransac. For (3), I must be missing some steps in the manual recovery pose function that I implemented, which resulted in such a high MSE. My next step would be to decide whether I should improve the non cv2.findEssentialMat version, or to design a bundle adjustment on the version with cv2. Then try to reach top 3 to receive extra credit for the assignment.

Current gradescope submission:

Minh Nguyen -160.37