Introduction to Computer Vision – 22928 Final Project – 2025a

Image Matching Challenge

Submission date – 6/2/2025

















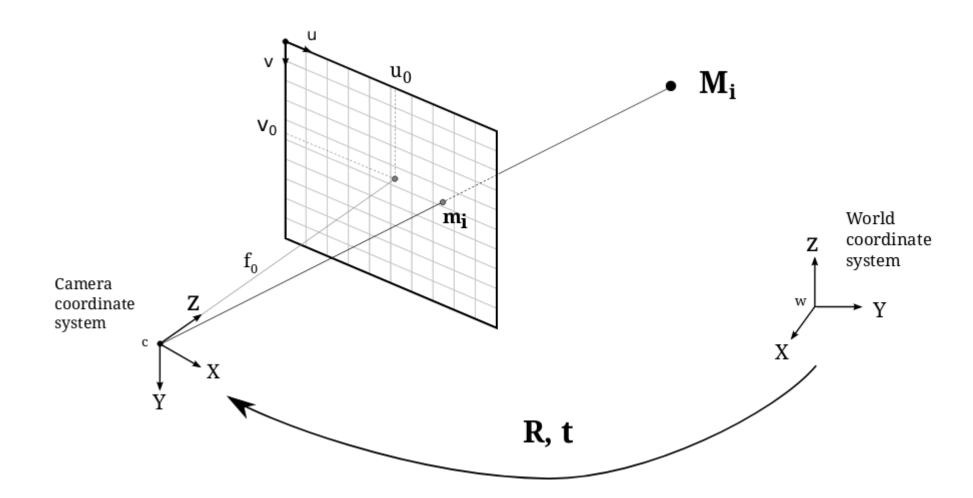












The challenge

- The goal of the contest is to estimate the relative pose between two images.
- Link to join the challenge -
 - https://www.kaggle.com/t/91aa2a425bc34732a405e7c79c2ec102

- Develop a model, submit your solution.
- Document it and report.

Where to start

- https://www.kaggle.com/t/91aa2a425bc34732a405e7c79c2ec102
- Structure-from-motion (sift+ransac+...)
- Continue from there ...

Develop

- Use any of the methods learned in class.
- Use any method you can find a description for in any paper.
- Implement it yourself in Python
 Including OpenCV and scikit-learn
 Any other package need to be approved
- DO NOT USE UNAUTHORIZED CODE

Document - Report

 Write a detailed document explaining your method:

No more than 10 pages,PDF.

- Show results
- Code must be stand alone (and running!).
- Pickle file with the final model.
- Document must cover all aspects of your work.

Late submission

- Expected to be submitted in time.
- Otherwise 2 points per late day.
- Up to 40 points == 20 days late.
- Later than that the course is failed :(

Grading

- Accuracy (how well did you do)
- Performance (how fast do you do it)
- Novelty (how new is your idea)
 - May build on existing ideas and still be novel
- Document and code organization
- Final grade is on a curve if you are worst (your method performs worst), you'll get the worst grade and it will be low

+5 bonus to the most up-voted notebook

Good Luck!!

