

CS6550 Computer Vision

Final Project (20%)

General Guideline

- 1-3 students form a group (3-member groups are highly encouraged to harder topics)
- Select a topic from the list of suggested topics or a topic related to computer vision
- The project consists of three stages
 - Project proposal (10%)
 - Project proposal presentation (30%)
 - Project Demo and report (60%)

List of Topics

Stereo matching

Image saliency detection

Gesture/Face verification, recognition

Facial expression recognition

Image classification

Image stitching

Image segmentation (learning based)

Object tracking

Object detection

Deep learning related works

Others...

Top Journals & Conferences

- IEEE Trans. Pattern Analysis and Machine Intelligence (PAMI)
- International Journal of Computer Vision (IJCV)
- IEEE Computer Society Conference on Computer Vision and
- Pattern Recognition (CVPR)
- International Conference on Computer Vision (ICCV)
- European Conference on Computer Vision (ECCV)
- SIGGRAPH, SIGGRAPH Asia

Step-by-Step Procedure

- Form a team
- Decide a topic
- Search related papers in recent top conferences and journals
- Read a few of the most related papers
- Discuss the project proposal and write the proposal
- Search related programs in public domain and test them
- Prepare the project presentation in class
- Implement the algorithm or your idea with experimentation
- Prepare the project demo and write the report

Reminder

- You don't need to implement the whole system of your project. Some components can be borrowed from others.
- Take advantage of publicly available resources, including code and dataset.
- It's important to complete the project that can show some demo or meaningful results.
- Including some experimental comparisons is encouraged.

Schedule

- 12/24 Project proposal due in class (project title, specific project goal, planned procedure, expected outcome, team members, references)
- Class proposal presentation 12/28, 12/31
 - 8 minutes for each team
- Voting for the Final project presentation date (1/11-14)
- 1/18: Final project report due