

EECS 442 Computer Vision

Assignment: Project Overview, Teaming and Selection

Term: Fall 2017

Instructor: Jason J. Corso, EECS, University of Michigan

Team/Selection Due Date: November 16 2017 14:59:59

Project Writeup Due Date: December 7, 201 14:59:59

Project Presentations: December 7 & 9, 2017 in class

Constraints: This assignment is to be executed by small groups of students with a size of 3 being optimal. Sharing resources across project teams is not permitted. Use of external code and toolkits for project is permitted for the implementation; projects may not just directly download and run code in its entirety. Implementation is needed.

Goals: expose the students to current literature, problems, methods and applications in computer vision; allow for a level of depth in the course by understanding and implementation of a specific method with known performance characteristics.

Project Description: Groups of students will carry out a computer vision project of their design. The project selection is fully open-ended. Students are encouraged to create a project that interests their team. The instruction staff realizes that scoping a project is a challenge and encourage interaction over piazza or office-hours for that discussion.

Projects need not lead to publications.

Projects should target a problem that uses computer vision techniques we have discussed during the term directly, that builds on the foundation of techniques that we have discussed, or that uses other computer vision techniques we have not discussed.

Projects must use visual data as the main subject. However, projects can include additional non-visual modalities, such as language or weather, if relevant.

Project ideas are not included in this document to avoid biasing choice; some have been mentioned in class.

Project implementations may be in any Turing-complete language of the students' choice.

You are required to write a four page report that describes the problem, your method and your results. All code will be submitted along with the report. The report should have an introduction section, a related work section, a methods sections, a results section and a discussion. Reports may not be longer than 4 pages, images and references included.

Submission Process: The GSIs will communicate the teaming process via piazza. They will also communicate the submission of the report, but we expect this to be on Canvas.

Grading and Evaluation: The overall project will be graded with 100 points (note the project is worth 15% of the overall course grade). These points will be distributed as follows

- 10 - On-time submission of the team and the selection of papers.
- 10 - On-time and complete submission of the term report.
- 10 - On-time and complete submission of the code.
- 10 - Creativity of the project itself.
- 30 - Professor and GSI grading of the project presentation.
- 30 - Professor and GSI grading of project content (report included).