

Intro to Image Understanding (CSC420)

Project Selection

Available: May 27th, 2020

Due Date: June 3rd, 10:59 pm, 2020

Initial Stage:

- Project is 40 points of your grade in this course and it is divided in four items as follows:

Item	Grade
Project Proposal	5
Project Report	12.5
Project Presentation (Pre-recorded Video)	12.5
Oral Defense	10
Total	40

- Projects can be done in groups of up to 3 people. All projects are quite big, so group work is actually encouraged.
- **First Step:** If you already have your groupmates, it is time for you to set up a meeting now with them and discuss this first step of the project. You have to decide on two things (besides all the logistics between yourself):
 1. The title of your project
 2. A unique name for your group

If you do not have any groupmates, you should still choose a preferred title **only** from the list of suggestions available on the course page.

- A list of suggestions for the project is available here:

CSC420H1 Y LEC9901 > Pages > Projects Titles

You are allowed to choose any of the titles in this list. This list provides just some suggestions and you are allowed to have your own project title chosen as long as a) your group has a consensus on the project title and b) your project is somehow related to what this course covers (or is about) and you can defend that. Remember, if you decide not to choose from this list, your project should be approved by the instructor. If you review the list, you will notice there are some titles that the instructor is personally interested in and he might be able to give more specific support and feedback if you decide to do a related project.

- Now, the next thing to do for you is to fill out the project selection form here (each student should do this individually by **June 3rd, 2020**):

<https://forms.gle/mRtqRKvf12t8wbsP9>

- You will get your groupmates and project titles assignments by **June 7th, 2020**.
- After that you will have one week to submit your proposals by **June 14th, 2020**.
- A project proposal is your commitment to the project you have chosen. Your project proposal should mention what you chose and who your project partners are. The project proposal should also answer the following 10 questions:
 1. What is the problem exactly and what are going to achieve?
 2. How is your problem relevant to this course?
 3. What have others tried to solve this problem?
 4. What approach are you going to try and why do you think it will work well?
 5. What steps (task list) are required?

Each question is worth **1 point** and after you submit your proposal, you will be assigned a TA mentor for your project who is going to grade your proposal. Your proposal should not be longer than 2 pages.

Final Stage:

- Each group should hand in **“one report”** and **“one recorded video presentation”**. There is no need for all the members of that group to submit the report and the video.
- The report should be accompanied by all the necessary codes that will regenerate the results in the report.
- From the report it should be clear what each student contributed to the project. You must have a section called **“Authors’ Contributions”** which details each student’s contribution separately.
- The recorded video presentation should not be longer than 12 minutes and all the group members should speak roughly around the same time (e.g. if there are three members, each member gets around 4 minutes).
- Make the code organized and documented, possibly including scripts that run your pipeline.

- At the beginning of the video you MUST introduce yourself with your student ID. Your face and your student ID should be clear enough for us to verify your identity. You may just show your ID and say your full name.
- Your report should include the following sections:
 1. Abstract
 2. Introduction and Literature Review (or similar Sections)
 3. Methodology, Results, and Experiments (or similar Sections)
 4. Conclusion
 5. Authors' Contributions
 6. References
- When you submit your project, you will be assigned a time slot with instructions to do the oral defense live.
- During the oral defense, each one of you will be asked 2-3 questions and your knowledge of the project will be evaluated accordingly.
- In the oral defense you may be asked to run some of your code and you should be able to defend it.
- The oral defense will be scheduled later in July.
- Whenever you use code available from some paper or method, you need to include a short description of the method showing your understanding of the technique.
- Whenever you use ideas, code or data from a paper, forum, webpage, etc, you need to cite it in your report.
- If there were multiple options for techniques or code, please also explain why you chose a particular one.

The grade will take into account the following factors:

- Your ideas to tackle a problem: how appropriate the techniques you chose are for the problem. Coming up with novel ideas is obviously a big plus.
- Your implementation: the accuracy of the solution, speed, and partly also how organized the code is (scripts that run the full pipeline or specific subtasks, documentation). The grade will take into account also the performance of your solution with respect to other students' results.
- Whether you implemented a technique yourself or used code available online
- How you present your results in the report: ideally you would show your results for each task by including a few pictures in your report. Even more ideally, you would show good cases where your method works and also bad cases where it doesn't. Providing some intuitive explanation of the failure cases is a plus.