Computer Vision and Machine Learning for Computer Graphics

SS2021

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Organisers

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Basic Coordinates

- Time: Thursdays, 14:15 – 15:45
- Place: online, via Zoom (the link is shared)
Formal Requirements in a Nutshell

- Not for beginners in visual computing
- You read all the papers
- Your presence is required!
  - We will monitor attendance.
- Submit questions & participate in discussion
- One topic is “Your Topic” (2 papers):
  - Deliver a 40 minute presentation
  - Write a 5–7 page report
- Grade: talk 30%, discussion 30%, report 40%
Organisation

- 24 topics to choose from
  - listed on seminar website + introduced later today
- Maximum of 12-13 presentation slots:
  - First presentation: Thursday, 22 April 2021
  - Each week until Thursday, 22 July 2021 (including)
- Each topic comes with a supervisor:
  - You can ask questions by e-mail at any time
    - about your topic, the papers, your presentation and report
  - Up to one office hour per week
Presentations

- Order of presentation will be determined after topic assignment
  - Slots can be swapped if necessary: talk to other participants first
- About 40 minutes long:
  - Introduction (about 5 minutes):
    - summary of previous week
    - finding themes that join the two papers
  - Technical content (about 35 minutes):
    - presentation of the two papers
    - again finding the common links between the papers
- Public feedback from other students after discussion
Suggested Presentation Preparation

- Schedule two meetings with your supervisor:
  - First meeting: 2–3 weeks before presentation
    - Read the papers for this meeting
    - Ask questions if you have difficulties
    - Discuss your plans for presentation
  - Second meeting: 1 week before presentation
    - Prepare a preliminary presentation (not a full rehearsal)
    - We can provide feedback
- It is your responsibility to arrange the meetings
- Do not rely on us providing last-minute feedback
Discussion (45–60 Minutes)

- On Tuesdays, at 23:59 pm:
  - Submit 2+ questions for discussion to golyanik@mpi-inf.mpg.de
  - Important: your contribution will be marked

- At the seminar:
  - One person assigned in advance to lead the discussion
  - Will get the collected questions submitted before the seminar
  - Gives summary of the talk
  - Moderates and guides discussion
  - Raises open questions that remain
  - Discussion of the strengths and weaknesses of the two papers
  - This will also be marked
Report

- 5–7 page summary of the major ideas in your topic:
  - 3–4 pages on the two papers
  - 3–4 additional paper references
  - 2–3 pages with your own ideas, for example:
    - Limitations not mentioned in the paper
    - + sketch of potential solution
    - Try to suggest improvements
    - Novel ideas based on content described in the papers
    - Can be the result of the discussion after your presentation

- The idea is that you get a feeling for your specific topic surpassing the level of simply understanding a paper.
Report

- Due date: **Sunday, 22 August 2021, 23:59 CEST** (4 weeks after the last seminar)
- Send PDF by e-mail (golyanik@mpi-inf.mpg.de)
- We provide a LaTeX template on the seminar website
- Plagiarism is not tolerable
Benefits to You

- Practise important skills in research
  - Read and understand technical papers
  - Present scientific results and convince other people
  - Analyse and develop new ideas through discussions
- Discussion is essential:
  - If you don’t participate, you miss a big chance
  - Most ideas are developed in discussions about other papers
- Therefore:
  - Prepare for the seminar classes
  - Participate actively in the discussions
  - Benefit from the interaction in the group
What this Seminar is not ...

- A course to just sit and listen
  - Come prepared
  - Read all papers before class, think about problems, submit questions and discuss them in class
  - Your participation benefits everyone
    - the group makes the seminar

- “Cheap” credit points
  - Don’t underestimate the time it takes to understand a paper, prepare a talk, and write a report
  - So please do take it seriously!
Schedule

- 15 April - Introduction
- 22 April - First presentation by a student
- ... 11-12 more weekly presentations ...
- 22 July - Last presentation by a student
- 22 August - Report deadline
Next Steps :: Topic Selection

- Send a message with up to three topics of your preference to elgharib@mpi-inf.mpg.de
- The topics will be assigned based on a first-come, first-served basis (decide soon!)
- The deadline is on the 16th of April, 12 am CEST (tomorrow)
- Please specify whether you would like to present next week (you will get extra points for the bravery and because you will have less time to prepare)
- Please let us know by the same deadline whether you go for the seminar or not: Since each participant will have to present and moderate a discussion once, by dropping out late, there will be fewer moderators than presentations, and vice versa.
Questions?

- This and other presentations are available on the seminar’s web page
- If you are assigned as the first presenter:
  - Contact us tomorrow (golyanik@mpi-inf.mpg.de)
  - Read the papers and contact your supervisor tomorrow (see the web page to determine who is your supervisor)
Thank You