Seminar Computer Vision

New research results in the field of Computer Vision and Image and Video Processing
About me

Visualization

Image-based Rendering
Image and Video Editing

Augmented / Virtual Reality

Rendering
About you
What?

- Goal: Introduction to working scientifically
- Individual topics
- Tasks:
  - **Paper** (research publication ) read and understand
  - Extract and present **Fundamentals**
  - **Feedback** for presentation of other participants
  - **Presentation** of the paper and discussion
What is the outcome? — Fundamentals

- Read the paper and **extract topics** required as background knowledge
- Choose appropriate number of topics and **prepare talk with one (two) partner(s)**
- Give **trial presentations to another group** and **write a review** for them
  - Send feedback to seminar.cv@cg.cs.tu-bs.de and the other group
- Present an **educational talk** on the topics to provide the necessary background knowledge for the final talks
  - 20min max
  - 10 minutes of discussion
  - Intuitive, visual explanation more important than details (think about the take away for the audience)
- **Discuss** fundamentals talks to improve your final talk

- 1 presentation day in the middle of the semester
- Slides can be in any template you like
What is the outcome? — **Review**

- Give feedback on the fundamentals talk
  - Is a motivation given?
  - Is the technique described in a way understandable also for non-experts?
  - Are equations explained thoroughly? Are the diagrams and images correct and accurate?
  - Are references given for every statement?
  - Is the content described in an understandable way? Are there still open questions?
  - Are references given for further reading?
  - ...

- About 1-2 pages

- Afterwards: Improve your own fundamentals talk based on the received review

- Send review to [seminar.cv@cg.cs.tu-bs.de](mailto:seminar.cv@cg.cs.tu-bs.de) and the other group members
What is the outcome? — Final Presentation

- Slides can be in any template you like
- Rehearsal with tandempartner (Mandatory!)
- Presentation
  - 20 minutes max
  - 10 minutes of discussion
  - Intuitive, visual explanation more important than details (think about the take away for the audience)
- 1-2 presentation days

- Send presentation as PDF to seminarcv@cg.tu-bs.de at least 1 day before your talk
Grading criteria

- Compliance with mandatory deadlines
- Communication with advisor in case of troubles
- **Bachelor or Master students**
  (related to expected quality and depth of the presentation and summary)
- Active participation in the review process
- Quality of the fundamentals (40%) and final talk (60%)
- **Main focus: Quality of slides and presentation**
  - The goal is not to show that you know your stuff, but to explain it to the audience in an intuitive and understandable way!

- Necessary requirement passing the course
- Graded requirement for passing the course
Plagiarism and scientific writing

- If you make a statement, you must also provide a corresponding source! For EVERY statement! Otherwise the part is deemed to have been claimed by you and you must prove that the statement is correct.

- **Don’t copy text from others!** Unless you cite the source and there is a good reason to copy. Mark the cited text with „…” followed by the reference.

- **Don’t copy images from others!** It is only allowed if you cite the paper (not the website) where it is from and if you refer to the image in your talk/text.

- Otherwise this is plagiarism and can have serious consequences for you!
  - In the worst case, it can lead to de-registration!
Generative AI Tools

- **Generative AI Tools**, like ChatGPT, are allowed but:
  - You need to mark everything where and how you used the AI Tools
  - Every slide/text, where you used an AI Tool needs to be marked
  - YOU are responsible for the result, not the AI Tool
Help

- Website contains two useful resources:
  - Link to a good scientific talk
    - Analyse why it is good!
    - How do they manage to explain even complex mathematical content in an understandable way?
    - How do they use text? And how often?
  - Link to an excerpt for scientific writing
    - Main focus is writing scientific articles for journals
    - It is a „How-to-debug your paper“ manual
    - Not necessarily everything applies for you, but many useful guides in there
Dates

See website https://graphics.tu-bs.de/teaching