Praktikum

Geometry Processing

Organization

Ludwig-Maximilians-Universität München
About

Changkun Ou, M. Sc.
changkun.ou@ifi.lmu.de
Instructor

Prof. Dr. Andreas Butz
butz@ifi.lmu.de
Responsible Professor
Registration & Timetable *(tentative)*

- Register via Uni2Work. **Important:**
  
  https://uni2work.ifi.lmu.de/course/W21/IfI/PGP

- **Time:** Monday 14:00 - 18:00
  - 14:00 - 16:00 Topics of the Day
  - 16:00 - 18:00 Discussion & Hacking

- **Zoom:** [https://lmu-munich.zoom.us/j/95163577341](https://lmu-munich.zoom.us/j/95163577341)
  - **Password:** <announced-in-presence>

<table>
<thead>
<tr>
<th>Dates</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.10.2021</td>
<td>Introduction</td>
</tr>
<tr>
<td>25.10.2021</td>
<td>Discrete Differential Geometry</td>
</tr>
<tr>
<td>08.11.2021</td>
<td>Smoothing</td>
</tr>
<tr>
<td>15.11.2021</td>
<td>Parameterization</td>
</tr>
<tr>
<td>22.11.2021</td>
<td>Remeshing</td>
</tr>
<tr>
<td>29.11.2021</td>
<td>Deformation</td>
</tr>
<tr>
<td>06.12.2021</td>
<td>Christmas Special: The Nanite System in Unreal Engine 5</td>
</tr>
<tr>
<td>10.01.2022</td>
<td>Data-driven Approach I: Statistical Learning, Representations, and Challenges with 3D Data</td>
</tr>
<tr>
<td>24.01.2022</td>
<td>Data-driven Approach II: Geometric Deep Learning and Differentiable Rendering</td>
</tr>
<tr>
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<td>Project Presentation (Idea-Pitch)</td>
</tr>
<tr>
<td>07.02.2022</td>
<td>Project Presentation (Intermediate)</td>
</tr>
<tr>
<td>24.01.2022</td>
<td>Project Presentation (Final)</td>
</tr>
</tbody>
</table>
Communications

- We use Github for all communications
  - [https://github.com/mimuc/gp/](https://github.com/mimuc/gp/)
  - Including skeletons, slides, submissions, …

**Issues:** report bugs regarding the repository

**Pull request:** submit code, contribute to the course, etc.

**Discussions:** discussion, ask questions, etc.
Grading (50%): Homework Projects

- Project difficulty depends on the actual topics
- (50%) You can decide to do 5 out of 7 given projects (5x10%), or
  - feel free to finish them all (no bonus, but learn more)
- Project will be released as homework after each session
- Coding skeleton will be provided, most likely 100~1000 lines of code
- Solutions will be discussed in a subsequent sessions (hence submission period is 1 week)
Grading (50%): Individual Project (subject to change)

- (10%) Proposal document, idea-pitch presentation (<5 minute)
- (10%) Intermediate presentation (≈5 minutes)
- (10%) Video submission (<2 minutes)
- (10%) Final presentation (≈10 minutes)
- (10%) Code submission
- More details: https://github.com/mimuc/gp#individual-project
PC (Blender) Support

- We may need to use PCs with dedicated GPUs in some of the projects.
- If you need support for a PC, send an email titled by "[GP] PC room request" with your name and matriculation number to me (changkun.ou@ifi.lmu.de) using campus address (@campus.lmu.de) before 30.10.2021.
- You will receive the credentials when the room is ready for you, then
- You must make an appointment via email to changkun.ou@medien.ifi.lmu.de before your visit
- Room address: Frauenlobstr. 7a Room 352
- Bookable slots: 10:00-13:00 & 13:00-16:00
Late & Cheat Policy

- Late submission: We don't accept late submission.
- Cheating: You don't.
  - Coding projects will surround the re-implementation of well-known GP algorithms, workflows, etc.
  - If one sent a pull request, then he/she's the solution will be visible publicly
  - We will discuss the solution anyway
  - If you found someone plagiarize your submission, ask the person to stop privately; if you can't find consensus together, please talk to me
  - If you just want a pass, we do not recommend participation in this course
  - Take responsibility for your own study
Books

Questions?