The Computer Vision Group at TUM (https://cvg.cit.tum.de/) is seeking two student assistants (m/f/x). In this role, you will assist with implementing and evaluating baseline methods for dynamic novel view synthesis, specifically targeted at egocentric data [1, 2]. Dynamic scene reconstruction is an exciting and rapidly evolving field in computer vision. Recent work, such as MonST3R [3], shows amazing results. We are looking for student assistants to support this line of research flexibly for 10-20 hours per week.

We offer:
- Insight into cutting-edge research and opportunity to collaborate with domain experts
- Practical exposure to applied computer vision
- Possibility to publish in top-tier venues as the lead author or co-author
- Flexible working hours (1--20 hours per week) & TUM-standard compensation

Responsibilities:
- Implement and run baseline methods for dynamic novel view synthesis focused on egocentric data.
- Evaluate the performance of baselines using established benchmarks.

Requirements:
- Strong knowledge of PyTorch and experience implementing neural networks
- Familiarity with 3D computer vision techniques such as 3D/4D Gaussian Splatting, Reconstruction, Multi-view geometry, etc.
- Strong communication skills and ability to work independently
- Commitment to high code quality and maintainability

The initial employment contract will be for 6 months, with the possibility of extension. The relevant project is highly research-oriented, and we encourage motivated students interested in gaining more research experience and publishing to directly contact us via email. Excellent outcomes can easily result in a publication in top-tier venues. If you're interested, please send your CV and grade reports to Abhishek Saroha at Abhishek.Saroha@in.tum.de and Xi wang at xi.wang@inf.ethz.ch.

[1] Grauman, Kristen, Andrew Westbury, Eugene Byrne, Zachary Chavis, Antonino Furnari, Rohit Girdhar, Jackson Hamburger et al. "Ego4d: Around the world in 3,000 hours of egocentric video." In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, pp. 18995-19012. 2022.

[2] Grauman, Kristen, Andrew Westbury, Lorenzo Torresani, Kris Kitani, Jitendra Malik, Triantafyllos Afouras, Kumar Ashutosh et al. "Ego-exo4d: Understanding skilled human activity from first-and third-person perspectives." In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, pp. 19383-19400. 2024.

[3] Zhang, Junyi, Charles Herrmann, Junhwa Hur, Varun Jampani, Trevor Darrell, Forrester Cole, Deqing Sun, and Ming-Hsuan Yang. "Monst3r: A simple approach for estimating geometry in the presence of motion." arXiv preprint arXiv:2410.03825 (2024).