

# Lu Sang, M.Sc.

TUM CVG group

Supervisor: Daniel Cremers

sangluisme@gmail.com

@Lu\_Sang\_

Lu Sang

<http://sangluisme.github.io>

## Education

- Dec. 2019 – present **Ph.D, candidate Computer Science, Technical University of Munich**  
Main research domain: 3D & 4D reconstruction Using Implicit Presentation.
- June. 2019 – Sep. 2016 **M.Sc. Mathematics, Technical University of Munich**  
Main research domain: Partial differential equations and differential geometry.
- Sep. 2011 – Sep. 2016 **B.Sc. Mathematics, Tongji University**  
Main research domain: Applied mathematics.

## Main Research Topics

- Photometric Stereo:** Classical and learning-based photometric stereo multiview reconstruction. Joint optimization with camera pose estimation with physical-based image model.
- 3D presentation:** classical and neural implicit surface representation and 3D reconstruction.
- 4D reconstruction and interpolation:** time-dependent implicit field with physical-plausible surface interpolation.

## Research Publications

- 1 M. Deka\*, **L. Sang\***, and D. Cremers, “Erasing the ephemeral: Joint camera refinement and transient object removal for street view synthesis,” in *GCPR*, 2024.
- 2 L. Härenstam-Nielsen, **L. Sang**, A. Saroha, N. Araslanov, and D. Cremers, “Diffcd: A symmetric differentiable chamfer distance for neural implicit surface fitting,” in *ECCV*, 2024.
- 3 D. Komorowicz\*, **L. Sang\***, F. Maiwald, and D. Cremers, “Coloring the past: Neural historical buildings reconstruction from archival photography,” in *GCPR*, 2024.
- 4 **L. Sang**, A. Saroha, M. Gao, and D. Cremers, “Enhancing surface neural implicits with curvature-guided sampling and uncertainty-augmented representations,” in *ECCVW*, 2024.
- 5 **L. Sang**, B. Haefner, X. Zuo, and D. Cremers, “High-quality rgb-d reconstruction via multi-view uncalibrated photometric stereo and gradient-sdf,” in *WACV*, 2023.
- 6 C. Sommer\*, **L. Sang\***, D. Schubert, and D. Cremers, “Gradient-SDF: A semi-implicit surface representation for 3d reconstruction,” in *CVPR*, 2022.
- 7 **L. Sang**, B. Haefner, and D. Cremers, “Inferring super-resolution depth from a moving light-source enhanced rgb-d sensor: A variational approach,” in *WACV*, 2020.

## Skills

- Coding **Python, Pytorch, Jax, C++**
- Languages **English (fluent), Chinese (native), German (intermediate)**