# Yujin Chen

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## Education

- **Technical University of Munich, Visual Computing Lab** — Munich, Germany
  Ph.D. Candidate in Computer Science — *Jul. 2021 - present*
- **Wuhan University, State Key Lab of LIESMARS** — Wuhan, China
  M.S. in Photogrammetry, Cartography and Geographic Information Engineering — *Sep. 2018 - Jun. 2021*
- **Wuhan University, School of Geodesy and Geomatics** — Wuhan, China
  B.E. in Geomatics Engineering — *Sep. 2014 - Jun. 2018*

## Research Experience

- **Research Scientist Intern, Meta Reality Lab** — Redmond, WA, U.S.
  Vision-Language Model, Multi-Modality Model, Human-Object Motion, Tactile Sensing — *Jul. 2025 - Nov. 2025*
- **PhD Student/Research Employee, Technical University of Munich** — Munich, Germany
  3D Scene Understanding, Representation Learning, NeRF, 3D Generation — *Jul. 2021 - Jul. 2026*
- **Research Intern, Tencent AI Lab** — Shenzhen, China
  3D Human/Hand Shape Reconstruction — *Dec. 2019 - Jun. 2021*
- **Visiting Research Assistant, University at Buffalo** — Buffalo, NY, U.S.
  Hand-object 3D Shape Reconstruction — *Jul. 2019 - Nov. 2019*
- **Research Assistant, Wuhan University** — Wuhan, China
  Indoor Visual Positioning, Hand Pose Estimation — *Jan. 2017 - Jun. 2021*

## Publications

1. **Yujin Chen**, Yinyu Nie, Benjamin Ummenhofer, Reiner Birkl, Michael Paulitsch, Matthias Nießner, "PBR-SR: Mesh PBR Texture Super Resolution from 2D Image Priors", Neural Information Processing Systems (NeurIPS), 2025.

2. **Yujin Chen**, Yinyu Nie, Benjamin Ummenhofer, Reiner Birkl, Michael Paulitsch, Matthias Müller, Matthias Nießner, "Mesh2NeRF: Direct Mesh Supervision for Neural Radiance Field Representation and Generation", European Conference on Computer Vision (ECCV), 2024.

3. **Yujin Chen**, Matthias Nießner, Angela Dai, "4DContrast: Contrastive Learning with Dynamic Correspondences for 3D Scene Understanding", European Conference on Computer Vision (ECCV), 2022.

4. **Yujin Chen**, Zhigang Tu, Di Kang, Linchao Bao, Ying Zhang, Xuefei Zhe, Ruizhi Chen, Junsong Yuan, "Model-based 3D Hand Reconstruction via Self-Supervised Learning", Conference on Computer Vision and Pattern Recognition (CVPR), 2021.

5. **Yujin Chen**, Zhigang Tu, Di Kang, Linchao Bao, Ruizhi Chen, Zhengyou Zhang, Junsong Yuan, "Joint Hand-Object 3D Reconstruction from a Single Image with Cross-branch Feature Fusion", IEEE Transactions on Image Processing (TIP), 2021.

6. **Yujin Chen**, Zhigang Tu, Liuhao Ge, Dejun Zhang, Ruizhi Chen, Junsong Yuan, "SO-HandNet: Self-Organizing Network for 3D Hand Pose Estimation with Semi-supervised Learning", International Conference on Computer Vision (ICCV), 2019.

7. **Yujin Chen**, Ruizhi Chen, Mengyun Liu, Aoran Xiao, Dewen Wu, Shuheng Zhao, "Indoor Visual Positioning Aided by CNN-Based Image Retrieval: Training-Free, 3D Modeling-Free", Sensors, 2018.

8. Junwen Huang, Alexey Artemov, **Yujin Chen**, Shuaifeng Zhi, Kai Xu, Matthias Nießner, "SSR-2D: Semantic 3D Scene Reconstruction from 2D Images", IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2024

9. Zhisheng Huang*, **Yujin Chen***, Di Kang, Zhigang Tu, "PHRIT: Parametric Hand Representation with Implicit Template", International Conference on Computer Vision (ICCV), 2023. **Equal Contribution.*

10. Zhigang Tu, Zhisheng Huang, **Yujin Chen***, Di Kang, Linchao Bao, Bisheng Yang, Junsong Yuan, "Consistent 3D Hand Reconstruction in Video via Self-supervised Learning", IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2023. *Extension of $S^2$Hand (CVPR2021), *Corresponding authorship.*

11. Jinlu Zhang, Zhigang Tu, Jianyu Yang, **Yujin Chen**, Junsong Yuan, "MixSTE: Seq2seq Mixed Spatio-Temporal Encoder for 3D Human Pose Estimation in Video", Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

12. Ping Chen, **Yujin Chen**, Dong Yang, Fangyin Wu, Qin Li, Qingpei Xia, Yong Tan, "I2UV-HandNet: Image-to-UV Prediction Network for Accurate and High-fidelity 3D Hand Mesh Modeling", International Conference on Computer Vision (ICCV), 2021.

## Awards and Honors

**China National Scholarship (highest scholarship in China)**, Ministry of Education of China *2020*
**Overseas Research Scholarship (top 1%)**, State Key Lab of LIESMARS *2019*
**LIESMARS Freshman Scholarship (top 3%)**, State Key Lab of LIESMARS *2018*
**Technion Summer School Fully Scholarship**, Israel Institute of Technology (Technion) *2018*
**National Endeavor Scholarship (top 3%)**, Ministry of Education of China *2015, 2016, 2017*
**Outstanding Bachelor Thesis Award**, Wuhan University *2018*
**Merit Student Honor (top 10%)**, Wuhan University *2016, 2017*

## Invited Talks

Contrastive Learning with Dynamic Correspondences for 3D Scene Understanding. *HiGraphics, Austria* *2022*
Mesh2NeRF: Direct Mesh Supervision for Neural Radiance Field Representation and Generation. *TUMVision, Germany* *2024*

## Academic Services

Organizer & Program Chair: ICCV2025 Workshop - Generating Indoor Digital Twins from Videos and Images
Reviewer: CVPR, ICCV, ECCV, NeurIPS, TPAMI, IJCV, TIP, T-CSVT
Head Teaching Assistant, Introduction to Deep Learning (IN2346), TUM *Winter 2022 - Summer 2025*
Teaching Assistant, Machine Learning for 3D Geometry (IN2392), TUM *Summer 2022*
Teaching Assistant, Advanced Deep Learning for Computer Vision (IN2390), TUM *Winter 2021*
Teaching Assistant, Computer Vision Basics, University at Buffalo *Summer 2019*