

# Minghua Liu

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## EDUCATION

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**University of California, San Diego**

September 2019 - Present

**Ph.D. in Computer Science and Engineering**

Advisor: Hao Su

**Tsinghua University**

August 2015 - July 2019

**B.Eng. in Computer Science and Technology**

GPA: 3.86 Rank: 3/154

## PUBLICATIONS AND MANUSCRIPT

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### Publications

- Minghua Liu, Minhyuk Sung, Radomir Mech, and Hao Su. DeepMetaHandles: Learning Deformation Meta-Handles of 3D Meshes with Biharmonic Coordinates. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2021.
- Minghua Liu, Xiaoshuai Zhang, and Hao Su. Meshing Point Clouds with Predicted Intrinsic-Extrinsic Ratio Guidance. In *Proceedings of the European Conference on Computer Vision (ECCV)*. 2020.
- Minghua Liu, Lu Sheng, Sheng Yang, Jing Shao, and Shi-Min Hu. Morphing and Sampling Network for Dense Point Cloud Completion. In *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. 2020.
- Minghua Liu, Hang Ma, Jiaoyang Li, and Sven Koenig. Task and Path Planning for Multi-Agent Pickup and Delivery. In *Proceedings of the International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. 2019.
- Fanbo Xiang, Yuzhe Qin, Kaichun Mo, Yikuan Xia, Hao Zhu, Fangchen Liu, Minghua Liu, Hanxiao Jiang, Yifu Yuan, He Wang, Li Yi, Angel X Chang, Leonidas J Guibas, and Hao Su. SAPIEN: A simulated part-based interactive environment. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2020.
- Jiachen Li, Quan Vuong, Shuang Liu, Minghua Liu, Kamil Ciosek, Henrik Christensen, and Hao Su. Multi-task Batch Reinforcement Learning with Metric Learning. In *Advances in Neural Information Processing Systems (NeurIPS)*. 2020.
- Sheng Yang, Beichen Li, Minghua Liu, Yu-Kun Lai, Leif Kobbelt, and Shi-Min Hu. HeteroFusion: Robust Scene Reconstruction using Heterogeneous Sensors on Robots. In *IEEE Transactions on Visualization and Computer Graphics (TVCG)*. 2019.
- Sheng Yang, Kang Chen, Minghua Liu, Hongbo Fu, and Shi-Min Hu. Saliency-aware Real-time Volumetric Fusion for Object Reconstruction. In *Computer Graphics Forum (Pacific Graphics)*. 2017.

## RESEARCH EXPERIENCE

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**Research Intern – Adobe Research, Remote**

Advisor: Radomir Mech and Minhyuk Sung

June 2020 - September 2020

- Worked on 3D mesh deformation.

**Research Intern – SenseTime Group Limited, Beijing**

Advisor: Jing Shao and Lu Sheng

January 2019 - July 2019

- Worked on 3D point cloud completion.

**Research Intern – Intelligent Decision Making Group, University of Southern California**

Advisor: Prof. Sven Koenig

July 2018 - September 2018

- Worked on multi-agent path finding.

**Research Assistant – Graphics and Geometric Computing Group, Tsinghua University**

Advisor: Prof. Shi-Min Hu

March 2017 - September 2018

- Worked on 3D reconstruction and SLAM.

**SELECTED AWARDS & HONORS**

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<b>Qualcomm Innovation Fellowship</b>	2020
<b>Powell Fellowship</b>	2019
<b>Zhong Shimo Scholarship</b>	2018
<b>China National Scholarship</b>	2017
<b>Silver Medal, National Olympiad in Informatics</b>	2014