Yiming ZUO

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Education

Princeton University — Princeton, NJ, USA
Ph.D. Candidate in Computer Science — 08/2021 - Present
- Research Advisor: Prof. Jia Deng

Carnegie Mellon University — Pittsburgh, PA, USA
M.S. in Robotics (MSR) — 08/2019 - 08/2021
- Research Advisor: Prof. Katerina Fragkiadaki
- GPA: 4.19/4.33

Tsinghua University — Beijing, China
B.Eng. in Electronic Engineering (with honors) — 09/2015 - 07/2019
- GPA: 3.80/4.00, Ranking: 21/246 (top 10%)

Research Interests

My research focus is 3D computer vision. I'm especially interested in 3D scene reconstruction and relevant techniques, including monocular view depth estimation, depth completion, and multi-view scene reconstruction and rendering. My long-term research goal is to create an immersive user experience for augmented reality and telepresence on edge devices.

Publications

- **Yiming Zuo**, Willow Yang, Zeyu Ma, Jia Deng. OMNI-DC: Highly Robust Depth Completion with Multiresolution Depth Integration. *arXiv:2411.19278*.
- **Yiming Zuo***, Karhan Kayan*, Maggie Wang, Kevin Jeon, Jia Deng, Thomas L. Griffiths. Towards Foundation Models for 3D Vision: How Close Are We? *3DV 2025*.
- **Yiming Zuo**, Jia Deng. OGNI-DC: Robust Depth Completion with Optimization-Guided Neural Iterations. *ECCV 2024*.
- Alexander Raistrick*, Lingjie Mei*, Karhan Kayan*, David Yan, **Yiming Zuo**, Beining Han, Hongyu Wen, Meenal Parakh, Stamatis Alexandropoulos, Lahav Lipson, Zeyu Ma, Jia Deng. Infinigen Indoors: Photorealistic Indoor Scenes using Procedural Generation. *CVPR 2024*.
- Alexander Raistrick*, Lahav Lipson*, Zeyu Ma*, Lingjie Mei, Mingzhe Wang, **Yiming Zuo**, Karhan Kayan, Hongyu Wen, Beining Han, Yihan Wang, Alejandro Newell, Hei Law, Ankit Goyal, Kaiyu Yang, Jia Deng. Infinite Photorealistic Worlds using Procedural Generation. *CVPR 2023*.
- **(Notable top 5% / Oral) Yiming Zuo**, Jia Deng. View Synthesis with Sculpted Neural Points. *ICLR 2023*.
- Adam Harley, **Yiming Zuo**, Jing Wen, Ayush Mangal, Shubhankar Potdar, Ritwick Chaudhry, Katerina Fragkiadaki. Track, Check, Repeat: An EM Approach to Unsupervised Tracking. *CVPR 2021*.
- **Yiming Zuo***, Weichao Qiu*, Lingxi Xie, Fangwei Zhong, Yizhou Wang, Alan Yuille. CRAVES: Controlling Robotic Arm with a Vision-based Economic System. *CVPR 2019*.
- Xuecheng Nie, Jiashi Feng, **Yiming Zuo**, Shuicheng Yan. Human Pose Estimation with Parsing Induced Learner. *CVPR 2018*.

Visiting Positions

Johns Hopkins University Baltimore, MD, USA
Visiting Research Student 06/2018 - 08/2018

- Research Advisor: Prof. Alan Yuille

National University of Singapore Singapore
Exchange Student 08/2017 - 12/2017

- Research Advisor: Dr. Jiashi Feng
- GPA: 5.0/5.0 (all five courses graded A+)

Teaching Experience

- COS 226 (Algorithms and Data Structures), Princeton University, Prof. Kevin Wayne and Prof. Dan Leyzberg, Spring 2023
- COS 451 (Computational Geometry), Princeton University, Prof. Bernard Chazelle, Fall 2022
- Media and Cognition, Tsinghua University, Prof. Shengjin Wang, Fall 2018

Academic Services

- Reviewer for CVPR 23-25, ECCV 24, ICCV 23, NeurIPS 24, ICLR 25, ICML 22, 3DV 25, ICRA 22/21

Academic Awards

- Outstanding Undergraduate (Bachelor's Degree with Honors), top 10% students, Tsinghua University, 2019
- Tsinghua Research Excellence Award, top 5%, Tsinghua University, 2018
- Tsinghua Academic Excellence Award, top 5%, Tsinghua University, 2018
- Qualcomm Scholarship (60 among 3000, top 2%), Qualcomm, Inc & Tsinghua University, 2017
- Wong Lo-Kat Scholarship for Outstanding Academic Performance, Wong Lo-Kat, Inc & Tsinghua University, 2017
- First Prize, Chinese High School Biology Olympiad, Zoological and Botanical Society of China, 2014

Skills

- Professional experience with deep-learning frameworks (PyTorch).
- Professional skill in 3D engines (especially modeling with Blender using Geometry nodes).
- Mathematics: Probability theory, Stochastic Process, Calculus, Linear Algebra
- Fluent Speaker: English, Mandarin; beginner: Japanese.