

YUE WANG

OFFICE: 2788 San Tomas Expy, Santa Clara, CA 95051

EMAIL: yuewang@csail.mit.edu

HOMEPAGE: <https://people.csail.mit.edu/yuewang>

RESEARCH INTEREST

3D Deep Learning; Robotics and Autonomous Driving; Computer Vision; Computer Graphics

CURRENT POSITION

Nvidia Research

Research Scientist

Sep. 2022 - Now

Manager: Prof. [Marco Pavone](#)

EDUCATION

Massachusetts Institute of Technology

Ph.D. Student in Computer Science

Sep. 2017 - June 2022

Advisor: Prof. [Justin Solomon](#)

- Dissertation: “Learning 3D Representations from Data”
- Nvidia Fellowship, David S. Y. Wong Fellowship
- GPA: 5.0/5.0

The University of California, San Diego

M.S. in Computer Science

Sep. 2015 - Dec. 2016

- GPA: 3.97/4.0

Zhejiang University

B.E. in Computer Science

Sep. 2011 - June 2015

- National Scholarship, Exchange Student Scholarship (Hong Kong University)
- GPA: 3.92/4.0

HONORS AND AWARDS

The first place recipient of the William A. Martin Masters Thesis Award, 2021, MIT EECS

[Nvidia Fellowship](#) (5 awardee worldwide), 2020, Nvidia

David S. Y. Wong Fellowship, 2017-2018, MIT

National Scholarship (2%), 2011-2012, 2012-2013, Ministry of Education of Peoples Republic of China

First-Class Scholarship for Outstanding Merits (3%), 2011-2012, 2012-2013, 2013-2014, Zhejiang University

Excellent Student Awards, 2011-2012, 2012-2013, Zhejiang University

PUBLICATIONS

JOURNAL

20. [AJ'21] Jun E. Yin, Daniel J. Eisenstein, Douglas P. Finkbeiner, Christopher W. Stubbs, and Yue Wang. “Active Optical Control with Machine Learning: A Proof of Concept for the Vera C. Rubin Observatory.” *The Astronomical Journal*, 2021. [\[link\]](#)

19. [TOG'19] Yue Wang, Yongbin Sun, Ziwei Liu, Sanjay E. Sarma, Michael M. Bronstein and Justin M. Solomon. "Dynamic Graph CNN for Learning on Point Clouds." *ACM Transactions on Graphics*, 2019. [\[link\]](#)

CONFERENCE

18. [CORL' 22] Yiming Li, Juexiao Zhang, Dekun Ma, Yue Wang, and Chen Feng . "Self-Supervised Collaborative Scene Completion: Towards Task-Agnostic Multi-Robot Perception." *Conference on Robot Learning*, 2022.[\[link\]](#)
17. [CORL' 22] Xiangru Huang, Yue Wang, Vitor Campagnolo Guizilini, Rares Andrei Ambrus, Adrien Gaidon, and Justin Solomon . "Representation Learning for Object Detection from Unlabeled Point Cloud Sequences." *Conference on Robot Learning*, 2022.[\[link\]](#)
16. [ICRA' 22] Qi Li*, Yue Wang*, Yilun Wang, Hang Zhao . "Hdmapnet: An Online HD Map Construction and Evaluation Framework ." *International Conference on Robotics and Automation* , 2022.[\[link\]](#)
15. [NeurIPS' 21] Yue Wang and Justin Solomon. "Object DGCNN: 3D Object Detection using Dynamic Graphs." *Conference on Neural Information Processing Systems*, 2021.[\[link\]](#)
14. [CORL' 21] Yue Wang, Vitor Guizilini, Tianyuan Zhang, Yilun Wang, Hang Zhao, and Justin Solomon. "DETR3D: 3D Object Detection from Multi-view Images via 3D-to-2D Queries." *Conference on Robot Learning*, 2021.[\[link\]](#)
13. [ICCV' 21] Tianyu Hua, Wenxiao Wang, Zihui Xue, Sucheng Ren, Yue Wang, and Hang Zhao. "On Feature Decorrelation in Self-Supervised Learning." *International Conference on Computer Vision*, 2021.[\[link\]](#)
12. [IROS' 21] Jiahui Fu, Qiangqiang Huang, Kevin Doherty, Yue Wang, and John J. Leonard. "A Multi-Hypothesis Approach to Pose Ambiguity in Object-Based SLAM." *International Conference on Intelligent Robots and Systems*, 2021.[\[link\]](#)
11. [ECCV' 20] Yue Wang, Alireza Fathi, Abhijit Kundu, David A. Ross, Caroline Pantofaru, Thomas A. Funkhouser, Justin M. Solomon. "Pillar-based Object Detection for Autonomous Driving." *European Conference on Computer Vision*, 2020.[\[link\]](#)
10. [ECCV' 20] Yonglong Tian*, Yue Wang*, Dilip Krishnan, Joshua B. Tenenbaum, Phillip Isola. "Rethinking Few-Shot Image Classification: A Good Embedding Is All You Need?." *European Conference on Computer Vision*, 2020.[\[link\]](#)
9. [WACV'20]Yongbin Sun, Yue Wang, Ziwei Liu, Joshua E Siegel and Sanjay E Sarma. "PointGrow: Autoregressively Learned Point Cloud Generation with Self-attention ." *Winter Conference on Applications of Computer Vision*, 2020.[\[link\]](#)
8. [NeurIPS'19] Yue Wang and Justin M. Solomon. "PRNet: Self-Supervised Learning for Partial-to-Partial Registration." *Conference on Neural Information Processing Systems*, 2019. [\[link\]](#)
7. [ICCV'19] Yue Wang and Justin M. Solomon. "Deep Closest Point: Learning Representations for Point Cloud Registration." *International Conference on Computer Vision*, 2019. [\[link\]](#)

WORKSHOP

6. Sihan Liu* and Yue Wang*. "Few-shot Learning with Online Self-Distillation." *2nd Visual Inductive Priors for Data-Efficient Deep Learning Workshop at the International Conference on Computer Vision* , 2021.[\[link\]](#)
5. Qi Li*, Yue Wang*, Yilun Wang, Hang Zhao . "HdMapNet: An Online HD Map Construction and Evaluation Framework." *Best Paper Nomination, Workshop on Autonomous Driving: Perception, Prediction and Planning*.2021[\[link\]](#)
4. Jun E. Yin, Daniel J. Eisenstein, Douglas P. Finkbeiner, Christopher W. Stubbs, and Yue Wang. "Active Optical Control with Machine Learning: A Proof of Concept for the Vera C. Rubin Observatory." *Workshop on Machine Learning and the Physical Sciences at the Neural Information Processing Systems*, 2021. [\[link\]](#)
3. Yue Wang, Alireza Fathi, Jiajun Wu, Thomas A. Funkhouser, Justin M. Solomon. "Multi-Frame to Single-Frame:

Knowledge Distillation for 3D Object Detection.” *Workshop on Perception for Autonomous Driving at the European Conference on Computer Vision*, 2020.[\[link\]](#)

PREPRINT

2. Lu Mi, Tianxing He, Core Francisco Park, Hao Wang, Yue Wang, and Nir Shavit. “Revisiting Latent-Space Interpolation via a Quantitative Evaluation Framework.” *Tech report*, 2021.[\[link\]](#)
1. Yongbin Sun, Ziwei Liu, Yue Wang, Sanjay E. Sarma. “Im2Avatar: Colorful 3D Reconstruction from a Single Image.” *Tech report*, 2018. [\[link\]](#)

INDUSTRIAL EXPERIENCES

Nvidia Research

2020 Summer

Research Intern

Host: Dr. Benjamin Eckart & Dr. Chris Choy

- Semi-supervised object detection from point clouds.

Google Research

2019 Fall & 2020 Spring

Student Researcher

Host: Prof. Tom Funkhouser & Dr. Alireza Fathi

- Self-supervised representation learning from point clouds and 3D object detection.

Google Research

2019 Summer

Research Intern

Host: Prof. Tom Funkhouser & Dr. Alireza Fathi

- Self-supervised representation learning from point clouds.

Google

2017 Spring & Summer

Software Engineer

- Monitoring tools for search frontend.

AutoX

2016 Fall

Research Intern

Host: Dr. Jianxiong Xiao

- Efficient perception for self-driving car.

ACADEMIC SERVICES

- Reviewer for the following conferences: NeurIPS 22’, CORL 22’, ECCV 22’, CVPR 22’, ICLR’21, NeurIPS’21, CVPR’21, SIGGRAPH Asia’20, SIGGRAPH’20, NeurIPS’20, ECCV’20, CVPR’20, CVPR’19, ICCV’19, NeurIPS’19, ICML’19 and UAI’19.
- Teaching Assistant at MIT: 6.819/6.869 (Advances in Computer Vision)

MENTORING, LEADERSHIP & ACTIVITIES

- Undergraduate Student Research Mentor: Sihan Liu, Ashley Jieun Lee, Shan Lu, Kevin Shao