Yurong You

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Employment

NVIDIA Research — Jan 2024 - present
Research Scientist, Autonomous Vehicle Research Group

Apple — Sep 2023 - Jan 2024
Postdoctoral Researcher, Special Projects Group

Education

Cornell University — Aug 2018 - Aug 2023
Ph.D., Computer Science
Master of Sceince, Computer Science
- Advisor: Prof. Kilian Q. Weinberger and Prof. Bharath Hariharan

Shanghai Jiao Tong University — Sep 2014 - Jun 2018
B.E. in Computer Science (Zhiyuan Honors Degree), ACM Honors Class
- Advisors: Prof. Yong Yu and Prof. Cewu Lu

Publications

Teaching Cars to See in a Day: Unsupervised Object Discovery with Reward Fine-tuning
Katie Z Luo, Zhenzhen Liu, Xiangyu Chen, **Yurong You**, Sagie Benaim, Cheng Perng Phoo, Mark Campbell, Wen Sun, Bharath Hariharan, Kilian Q Weinberger
Conference on Neural Information Processing Systems (NeurIPS) 2023

Unsupervised Adaptation from Repeated Traversals for Autonomous Driving
Yurong You*, Cheng Perng Phoo*, Katie Z Luo*, Travis Zhang, Wei-Lun Chao, Bharath Hariharan, Mark Campbell, Kilian Q Weinberger
Conference on Neural Information Processing Systems (NeurIPS) 2022

Learning to Detect Mobile Objects from LiDAR Scans Without Labels
Yurong You*, Katie Z Luo*, Cheng Perng Phoo, Wei-Lun Chao, Wen Sun, Bharath Hariharan, Mark Campbell, Kilian Q. Weinberger
Conference on Computer Vision and Pattern Recognition (CVPR) 2022

Ithaca365: Dataset and Driving Perception under Repeated and Challenging Weather Conditions
Carlos Andres Diaz, Youya Xia, **Yurong You**, Jose Nino, Junan Chen, Josephine Monica, Xiangyu Chen, Katie Z Luo, Yan Wang, Marc Emond, Wei-Lun Chao, Bharath Hariharan, Kilian Q. Weinberger, and Mark Campbell
Conference on Computer Vision and Pattern Recognition (CVPR) 2022

Hindsight is 20/20: Leveraging Past Traversals to Aid 3D Perception
Yurong You, Katie Z Luo, Xiangyu Chen, Junan Chen, Wei-Lun Chao, Wen Sun, Bharath Hariharan, Mark Campbell, Kilian Q. Weinberger
International Conference on Learning Representations (ICLR) 2022

R4D: Utilizing Reference Objects for Long-Range Distance Estimation
Yingwei Li, Tiffany Chen, Maya Kabkab, Ruichi Yu, Longlong Jing, **Yurong You**, Hang Zhao
International Conference on Learning Representations (ICLR) 2022

* indicates equal contribution

Exploiting Playbacks in Unsupervised Domain Adaptation for 3D Object Detection
Yurong You*, Carlos Andres Diaz-Ruiz*, Yan Wang, Wei-Lun Chao, Bharath Hariharan, Mark Campbell, Kilian Q. Weinberger
IEEE International Conference on Robotics and Automation (ICRA) 2022

Depth Estimation Matters Most: Improving Per-Object Depth Estimation for Monocular 3D Detection and Tracking
Longlong Jing, Ruichi Yu, Henrik Kretzschmar, Kang Li, Ruizhongtai Qi, Hang Zhao, Alper Ayvaci, Xu Chen, Dillon Cower, Yingwei Li, **Yurong You**, Han Deng, Congcong Li, Dragomir Anguelov
IEEE International Conference on Robotics and Automation (ICRA) 2022

End-to-End Pseudo-LiDAR for Image-Based 3D Object Detection
Rui Qian*, Divyansh Garg*, Yan Wang*, **Yurong You***,
Serge Belongie, Bharath Hariharan, Mark Campbell, Kilian Q. Weinberger, Wei-Lun Chao
Conference on Computer Vision and Pattern Recognition (CVPR) 2020

Train in Germany, Test in The USA: Making 3D Object Detectors Generalize
Yan Wang*, Xiangyu Chen *, **Yurong You**, Li Erran,
Bharath Hariharan, Mark Campbell, Kilian Q. Weinberger, Wei-Lun Chao
Conference on Computer Vision and Pattern Recognition (CVPR) 2020

Pseudo-LiDAR++: Accurate Depth for 3D Object Detection in Autonomous Driving
Yurong You*, Yan Wang*, Wei-Lun Chao*, Divyansh Garg, Geoff Pleiss,
Bharath Hariharan, Mark Campbell, Kilian Q. Weinberger
International Conference on Learning Representations (ICLR) 2020

Simple Black-box Adversarial Attacks
Chuan Guo, Jacob R. Gardner, **Yurong You**,
Andrew Gordon Wilson, Kilian Q. Weinberger
International Conference on Machine Learning (ICML) 2019

Resource Aware Person Re-identification across Multiple Resolutions
Yan Wang*, Lequn Wang*, **Yurong You***, Xu Zou, Vincent Chen, Serena Li,
Bharath Hariharan, Gao Huang, Kilian Q. Weinberger
Conference on Computer Vision and Pattern Recognition (CVPR) 2018

Virtual to Real Reinforcement Learning for Autonomous Driving
Xinlei Pan*, **Yurong You***, Ziyan Wang, Cewu Lu
Spotlight, *British Machine Vision Conference* (BMVC) 2017

Internship

Waymo LLC
Research Intern, Perception and Sensor Simulation May 2022 - Dec 2022
- Host: Charles R. Qi

NVIDIA Corporation
Research Intern Jun 2021 - Aug 2021
- Host: Benjamin Eckart

Waymo LLC
Intern, Perception Research and Development May 2020 - Dec 2020

- Host: Jiyang Gao and Xinwei Shi

Prof. Kilian Q. Weinberger's Group at Cornell University
Visiting Undergraduate Research Intern Sep 2017 - Dec 2017
- Advisor: Prof. Kilian Q. Weinberger

Computational Vision and Geometry Lab at Stanford University
Visiting Undergraduate Research Intern Jun 2017 - Aug 2017
- Advisor: Prof. Silvio Savarese

Machine Vision and Intelligence Group at Shanghai Jiao Tong University
Research Assistant Aug 2016 - Jun 2018
- Advisor: Prof. Cewu Lu

Honors and Awards

Co-First Place & People's Choice in Cornell Three Minute Thesis Competition 2023
Outstanding Graduate of Shanghai Jiao Tong Univ. 2018
Zhiyuan Outstanding Graduate Scholarship 2018
Lixin Tang Scholarship of Shanghai Jiao Tong Univ. (Top 1%) 2017, 2016
Zhiyuan Honorary Scholarship 2016, 2015
Academic Excellence Scholarship (Class A) of SJTU. (Top 5%) 2015
KoGuan Encouragement Scholarship of SJTU. (Top 4%) 2015

Teaching Experience

CS 4/5780: Intro to Machine Learning
Teaching Assistant, Cornell University Jan - May 2023

CS 2110: OO Programming and Data Structures
Teaching Assistant, Cornell University Aug - Dec 2018

CS 259: Numerical Methods for Data Science
Teaching Assistant, Shanghai Jiao Tong University Mar - Jun 2018

MS208: Compiler Design and Implementation
Teaching Assistant, Shanghai Jiao Tong University Mar - Jun 2017

Professional Activities

Reviewer of NeurIPS (2020, 2021, 2022, 2023), ICLR (2021, 2023, 2024), CVPR (2021, 2022, 2023, 2024), ICCV (2021, 2023), ICML (2022, 2023, 2024), ECCV (2022), AAAI (2023), IROS (2023), ICRA (2024)

Programming Proficiencies

Python, C/C++, Matlab, LaTeX, Java, Verilog HDL

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