

Yiming Qian

CONTACT INFORMATION	School of Computing Science Simon Fraser University Burnaby, BC, Canada, V5A 1S6	+1(780)668-5381 qym.ustc@gmail.com https://yi-ming-qian.github.io/
RESEARCH INTERESTS	Computer vision, computer graphics, machine learning, computational imaging.	
APPOINTMENT	Simon Fraser University Postdoctoral Fellow <i>Supervisor:</i> Prof. Yasutaka Furukawa Working on deep learning and computer vision.	Mar 2019 – Present
EDUCATION	University of Alberta Ph.D. in Computing Science <i>Advisors:</i> Prof. Herbert Yang and Prof. Minglun Gong <i>Thesis:</i> Light transport acquisition and 3d reconstruction in the presence of light refraction.	Sep 2014 – Mar 2019
	Memorial University of Newfoundland M.Sc. in Computer Science <i>Advisor:</i> Prof. Minglun Gong <i>Thesis:</i> Self-tuning one-class support vector machines for data classification.	Sep 2012 – Aug 2014
	University of Science and Technology of China (USTC) B.Eng. in Automation, School of Information Science and Technology	Aug 2008 – Jul 2012
AWARDS	Alberta Innovates Graduate Student Scholarship ◦ \$31500CAD annual support to academically superior graduate students at an Alberta university	2016 – 2018
	Graduate Travel Award	2016, 2017
	Graduate Student Professional Development Award	2015, 2016
	PhD Early Achievement Award ◦ Awarded annually to one PhD student across the department	2015
	Dean’s Excellence Award ◦ Awarded annually to one PhD student in each department of Faculty of Science	2015
	Best Paper Award ◦ The 28th Canadian Conference on Artificial Intelligence, Halifax, Nova Scotia	2015
	Graduate Student Scholarship (Memorial University)	2012 – 2014
	Outstanding Undergraduate Student Scholarship (USTC)	2009 – 2011
PUBLICATIONS	Referred Conferences and Journals	
	Yiming Qian , Hao Zhang and Yasutaka Furukawa. “Roof-GAN: Learning to Generate Roof Geometry and Relations for Residential Houses.” <i>Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)</i> , 2021.	
	Sachini Herath, Saghar Irandoust, Bowen Chen, Yiming Qian , Pyojin Kim, Yasutaka Furukawa. “Fusion-DHL: WiFi, IMU, and Floorplan Fusion for Dense History of	

Locations in Indoor Environments.” *IEEE International Conference on Robotics and Automation (ICRA)*, 2021.

Yiming Qian and Yasutaka Furukawa. “Learning Pairwise Inter-Plane Relations for Piecewise Planar Reconstruction.” *Proceedings of the European Conference on Computer Vision (ECCV)*, 2020.

Shihao Zou, Xinxin Zuo, **Yiming Qian**, Sen Wang, Chi Xu, Minglun Gong and Li Cheng “3D Human Shape Reconstruction from a Polarization Image.” *Proceedings of the European Conference on Computer Vision (ECCV)*, 2020.

Qing Cai, Huiying Liu, **Yiming Qian**, Sanping Zhou, Xiaojun Duan and Yee-Hong Yang. “Unsupervised Hierarchical Image Segmentation through Fuzzy Entropy Maximization.” *Pattern Recognition*, 2019.

Yiming Qian, Yinqiang Zheng, Minglun Gong and Yee-Hong Yang. “Simultaneous 3D Reconstruction for Water Surface and Underwater Scene.” *Proceedings of the European Conference on Computer Vision (ECCV)*, 2018.

Bojian Wu, Yang Zhou, **Yiming Qian**, Minglun Gong, Hui Huang. “Full 3D Reconstruction of Transparent Objects.” *ACM Transactions on Graphics (Proceedings of SIGGRAPH)*, 2018.

Yiming Qian, Minglun Gong and Yee-Hong Yang. “Stereo-based 3D Reconstruction of Dynamic Fluid Surfaces by Global Optimization.” *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017.

Shibai Yin, **Yiming Qian** and Minglun Gong. “Unsupervised Hierarchical Image Segmentation through Fuzzy Entropy Maximization.” *Pattern Recognition*, 2017.

Yunhai Wang, **Yiming Qian**, Yang Li, Minglun Gong and Wolfgang Banzhaf. “Artificial Multi-Bee-Colony Algorithm for k-Nearest-Neighbor Fields Search.” *Proceedings of the ACM Genetic and Evolutionary Computation Conference (GECCO)*, 2016.

Yiming Qian, Minglun Gong and Yee-Hong Yang. “3D Reconstruction of Transparent Objects with Position-Normal Consistency.” *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016.

Yiming Qian, Minglun Gong and Yee-Hong Yang. “Frequency-based Environment Matting by Compressive Sensing.” *Proceedings of the IEEE International Conference on Computer Vision (ICCV)*, 2015.

Yiming Qian, Hao Yuan and Minglun Gong. “Budget-Driven Big Data Classification.” *Canadian Conference on Artificial Intelligence*, 2015. *Best Paper Award*.

Yiming Qian, Minglun Gong and Li Cheng. “STOCS: An Efficient Self-Tuning Multiclass Classification Approach.” *Canadian Conference on Artificial Intelligence*, 2015.

Minglun Gong, **Yiming Qian** and Li Cheng. “Integrated Foreground Segmentation and Boundary Matting for Live Videos.” *IEEE Transactions on Image Processing (TIP)*, 2015.

Hadar Averbuch-Elor, Yunhai Wang, **Yiming Qian**, Minglun Gong, Johannes Kopf, Hao Zhang, Daniel Cohen-Or. “Distilled Collections from Textual Image Queries.”

Computer Graphics Forum (Proceedings of Eurographics), 2015.

INTERNSHIPS

Google, Mountain View

May 2017 - Aug 2017

- Software engineer intern @ The Chrome Team
- I implemented an innovative image warping method for virtual reality stereo video compression.

Microsoft Research Asia, Beijing

Jul 2011 - Jun 2012

- Research intern @ Internet Graphics Group
- B.Eng thesis topic: facial intrinsic image decomposition
- 20 undergraduate students were enrolled annually into the program across the university.

TEACHING
EXPERIENCE

Teaching Assistant

- CMPUT 411, Introduction to Computer Graphics, UAlberta Fall 2015
- COMP 4751, Introduction to Computer Graphics, Memorial Winter 2014
- COMP 4740, Design and Analysis of Algorithms, Memorial Fall 2013

Guest Lecturer

- CMPT412, Computer Vision, SFU Fall 2019
Presented a lecture on the bag-of-words method in computer vision.
- CMPUT 411, Introduction to Computer Graphics, UAlberta Fall 2018
Presented a lecture on line and circle generation in computer graphics.
- CMPUT 611, Computational Photography, UAlberta Winter 2016
Presented a lecture on frequency-based environment matting.

Lab Instructor

- CMPUT 174, Introduction to the Foundations of Computation I Winter 2015
- CMPUT 174, Introduction to the Foundations of Computation I Fall 2014
Presented 20-minute lectures on introductory python programming, and then assisted students by answering questions in the weekly lab.

SERVICE AND
OUTREACH

I have been a reviewer or a program committee member for the following journals and conferences:

- IEEE/CVF Conference on Computer Vision and Pattern Recognition
- AAAI Conference on Artificial Intelligence
- International Conference on Robotics and Automation
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Winter Conference on Computer Vision
- Asian Conference on Computer Vision
- Pattern Recognition
- Machine Vision and Applications

I have been a volunteer at the following events:

- Speaker at Let's Talk Science for high school students from rural areas, 2016, 2017
- Tour Guide for Computing Science Open House, 2015, 2016, 2017
- Demo Presenter at Iverson Programming Competition Day, 2015, 2016

IMMIGRATION
STATUS

Permanent resident of Canada