

Yiming Qian

CONTACT INFORMATION	School of Computing Science Simon Fraser University Burnaby, BC, Canada, V5A 1S6	+1(780)668-5381 qym.ustc@gmail.com webdocs.cs.ualberta.ca/~yqian3
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 for structured 3D reconstruction.	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>Area of study:</i> machine learning and computer vision <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 Scholarships ◦ \$31500CAD annually support to academically superior graduate students at an Alberta university	2016 – 2018
	Graduate Travel Award	2016
	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 , Yinqiang Zheng, Minglun Gong and Yee-Hong Yang. "Simultaneous 3D Reconstruction for Water Surface and Underwater Scene." <i>Proceedings of the European Conference on Computer Vision (ECCV)</i> , 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 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 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
- Mentor: Dr. Yunqing Wang
- I implemented an innovative image warping method for virtual reality stereo video compression, which is currently under patent application.

Microsoft Research Asia, Beijing

Jul 2011 - Jun 2012

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

TEACHING

Teaching Assistant

EXPERIENCE

- 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

- 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.

PRESENTATIONS

Conference Posters:

- CVPR workshop, Salt Lake City, Utah, June 2018. *Refraction-based 3D Reconstruction.*
- CVPR, Honolulu, Hawaii, July 2017. *Stereo-based 3D Reconstruction of Dynamic Fluid Surfaces by Global Optimization.*
- CVPR, Las Vegas, Nevada, June 2016. *3D Reconstruction of Transparent Objects with Position-Normal Consistency.*
- ICCV, Santiago, Chile, December 2015. *Frequency-based Environment Matting by Compressive Sensing.*

Academic Talks:

- Carnegie Mellon University, Pittsburgh, May 2018. *3D Reconstruction in the Presence of Light Refraction.*
- Google, Mountain View, August 2017. *Image Warping Methods for Virtual Reality Stereo Video Compression.*
- Reverse Expo, Edmonton, Alberta, February 2017. *3D Reconstruction of Transparent Objects with Position-Normal Consistency.*

I have given regular presentations (40 minutes each) on a variety of topics in computer vision for the UAlberta Computer Graphics Group weekly seminars.

SERVICE AND OUTREACH

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

- AAAI Conference on Artificial Intelligence, 2019
- Pattern Recognition, 2014, 2015, 2016, 2017, 2018
- Machine Vision and Applications, 2017
- International Conference on Robotics and Automation, 2017
- Ocean Engineering, 2017
- Journal of Electronic Imaging, 2015
- ACM Transactions on Intelligent Systems and Technology, 2014

I have been a volunteer at the following events:

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