MINGLUN GONG

PROFESSOR AND DIRECTOR

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EMPLOYMENT HISTORY:

2019.05 ~ pres.	**Professor, University of Guelph**
2019.05 ~ 2025.04	**Adjunct Professor, Memorial University of Newfoundland**
2015.09 ~ 2019.04	**Professor (early promoted), Memorial University of Newfoundland**
2006.09 ~ 2018.12	**Adjunct Professor, University of Alberta**
2010.09 ~ 2015.08	**Associate Professor (early tenured), Memorial University of Newfoundland**
2012.11 ~ 2013.06	**Visiting Professor, Shenzhen Institute of Advanced Technology**
2010.11 ~ 2011.02	**Visiting Professor, Shenzhen Institute of Advanced Technology**
2007.08 ~ 2010.08	**Assistant Professor, Memorial University of Newfoundland**
2003.08 ~ 2007.07	**Assistant Professor, Laurentian University**
1999.07 ~ 2000.08	**Sessional Lecturer, University of Saskatchewan**
1997.07 ~ 1997.12	**Software Engineer, China Academy of Building Research**

EDUCATION AND DEGREES:

2003.11 **Doctor of Philosophy in Computer Science**
Department of Computing Science, University of Alberta, Canada
Dissertation: Rayset and its applications to static and dynamic image synthesis

1997.07 **Master of Science in Computer Science**
Department of Computer Science & Technology, Tsinghua University, P. R. China
Thesis: Rendering and real time walkthrough techniques for architectural modeling

1994.07 **Bachelor of Engineering**
Harbin Engineering University, P. R. China
Majors: Computer Science & Mechanical Engineering

RESEARCH CONTRIBUTIONS:

Refereed Articles in Prestigious Journals:

1. Xu Juzhan, Gong Minglun, Zhang Hao, Huang Hui, & Hu Ruizhen: Neural packing: From visual sensing to reinforcement learning. *ACM Transactions on Graphics* (6 - SIGGRAPH Asia). December 2023.
2. *Wang Mingjie, *Cai Hao, Han Xianfeng, *Zhou Jun, & Gong Minglun: STNet: Scale Tree Network with multi-level auxiliator for crowd counting. *IEEE Transactions on Multimedia* 25: 2074-2084. January 2023.
3. Liu Yilin, Cui Ruiqi, Xie Ke, Gong Minglun, & Huang Hui: Aerial path planning for online real-time exploration and offline high-quality reconstruction of large-scale urban scenes. *ACM Transactions on Graphics* 40(6 - SIGGRAPH Asia): 1-16. December 2021.
4. *Zuo Xinxin, *Wang Sen, Zheng Jiangbin, Yu Weiwei, Gong Minglun, Yang Ruigang, & Cheng Li: SparseFusion: Dynamic human avatar modeling from sparse RGBD images. *IEEE Transactions on Multimedia* 23: 1617-1629. June 2021.
5. Hu Ruizhen, Xu Juzhan, Chen Bin, Gong Minglun, Zhang Hao, & Huang Hui: TAP-Net: Transport-and-pack using reinforcement learning. *ACM Transactions on Graphics* 39(6 - SIGGRAPH Asia): 1-15. November 2020.
6. Zhou Xiaohui, Xie Ke, Huang Kai, Liu Yilin, Zhou Yang, Gong Minglun, & Huang Hui: Offsite aerial path planning for efficient urban scene reconstruction. *ACM Transactions on Graphics* 39(6 - SIGGRAPH Asia): 1-16. November 2020.
7. *Yi Zili, Chen Zhiqin, *Cai Hao, *Mao Wendong, Gong Minglun, & Zhang Hao: BSD-GAN: Branched generative adversarial networks for scale-disentangled representation learning and image synthesis. *IEEE Transactions on Image Processing* 29: 9073-9083. August 2020.
8. *Zhou Jun, *Wang Mingjie, *Mao Wendong, Gong Minglun, & Liu Xiuping: SiamesePointNet: A Siamese Point Network architecture for learning 3D shape descriptor. *Computer Graphics Forum* 39(1): 309-321. February 2020.
9. Wu Shihao, Bertholet Peter, Huang Hui, Cohen-Or Daniel, Gong Minglun, & Zwicker Matthias: Structure-aware data consolidation. *IEEE Transactions on Pattern Analysis and Machine Intelligence* 40(10): 2529-2537. October 2018.
10. Xie Ke, Yang Hao, Huang Shengqiu, Lischinski Dani, Christie Marc, Xu Kai, Gong Minglun, Cohen-Or Daniel, & Huang Hui: Creating and chaining camera moves for quadrotor videography. *ACM Transactions on Graphics* 37(4 - SIGGRAPH): 1-13. August 2018.
11. Wu Bojian, Zhou Yang, *Qian Yiming, Gong Minglun, & Huang Hui: Full 3D reconstruction of transparent objects. *ACM Transactions on Graphics* 37(4 - SIGGRAPH): 1-11. August 2018.
12. Huang Hui, Xie Ke, Ma Lin, Lischinski Dani, Gong Minglun, Tong Xin, & Cohen-Or Daniel: Appearance modeling via proxy-to-image alignment. *ACM Transactions on Graphics* 37(1): 1-15. January 2018.
13. Zheng Qian, Fan Xiaochen, Gong Minglun, Sharf Andrei, Deussen Oliver, & Huang Hui: 4D reconstruction of blooming flowers. *Computer Graphics Forum* 36(6): 405-417. September 2017.

14. *Wang Yunhai, Li Jingting, Nie Feiping, Theisel Holger, Gong Minglun, & Lehmann Dirk: Linear discriminative star coordinates for exploring class and cluster separation of high dimensional data. *Computer Graphics Forum* 37(3 - EuroVis): 401-410. June 2017.
15. Zhou Yang, Shi Huajie, Lischinski Dani, Gong Minglun, Kopf Johannes, & Huang Hui: Analysis and controlled synthesis of inhomogeneous textures. *Computer Graphics Forum* 36(2 - Eurographics): 199-212. May 2017.
16. Huang Hui, Lischinski Dani, Hao Zhuming, Gong Minglun, Christie Marc, & Cohen-Or Daniel: Trip synopsis: 60km in 60sec. *Computer Graphics Forum* 35(7 - Pacific Graphics): 107-116. October 2016.
17. Yin Kangxue, Huang Hui, Long Pinxin, Gaissinski Alexei, Gong Minglun, & Sharf Andrei: Full 3D plant reconstruction via intrusive acquisition. *Computer Graphics Forum* 35(1): 272–284. February 2016.
18. Wu Shihao, Huang Hui, Gong Minglun, Zwicker Matthias, & Cohen-Or Daniel: Deep points consolidation. *ACM Transactions on Graphics* 34(6 - SIGGRAPH Asia): 1-13. November 2015.
19. Zhou Yang, Yin Kangxue, Huang Hui, Zhang Hao, Gong Minglun, & Cohen-Or Daniel: Generalized cylinder decomposition. *ACM Transactions on Graphics* 34(6 - SIGGRAPH Asia): 1-14. November 2015.
20. Averbuch-Elor Hadar, *Wang Yunhai, *Qian Yiming, Gong Minglun, Kopf Johannes, Zhang Hao, & Cohen-Or Daniel: Distilled collections from textual image queries. *Computer Graphics Forum* 34(2 - Eurographics): 131-142. May 2015.
21. Gong Minglun, *Qian Yiming, & Cheng Li: Integrated foreground segmentation and boundary matting for live videos. *IEEE Transactions on Image Processing* 24(4): 1356-1370. April 2015.
22. Yin Kangxue, Huang Hui, Zhang Hao, Gong Minglun, Cohen-Or Daniel, & Chen Baoquan: Morfit: Interactive surface reconstruction from incomplete point clouds with curve-driven topology and geometry control. *ACM Transactions on Graphics* 33(6 - SIGGRAPH Asia): 1-12. December 2014.
23. Wu Shihao, Sun Wei, Long Pinxin, Huang Hui, Cohen-Or Daniel, Gong Minglun, Deussen Oliver, & Chen Baoquan: Quality-driven Poisson-guided autoscanning. *ACM Transactions on Graphics* 33(6 - SIGGRAPH Asia): 1-12. December 2014.
24. *Strong Grant & Gong Minglun: Self-sorting map: An efficient algorithm for presenting multimedia data in structured layout. *IEEE Transactions on Multimedia* 16(4): 1045-1058. June 2014.
25. Yan Feilong, Gong Minglun, Cohen-Or Daniel, Deussen Oliver, & Chen Baoquan: Flower reconstruction from a single photo. *Computer Graphics Forum* 33(2 - Eurographics): 439-447. May 2014.
26. Sharf Andrei, Huang Hui, Liang Cheng, Zhang Jiapei, Chen Baoquan, & Gong Minglun: Mobility-trees for indoor scenes manipulation. *Computer Graphics Forum* 33(1): 2-14. February 2014.
27. *Wang Yunhai, Gong Minglun, Wang Tianhua, Cohen-Or Daniel, Zhang Hao, & Chen Baoquan: Projective analysis for 3D shape segmentation. *ACM Transactions on Graphics* 32(6 - SIGGRAPH Asia): 1-12. November 2013.

28. Huang Hui, Yin Kangxue, Gong Minglun, Lischinski Dani, Cohen-Or Daniel, Ascher Uri, & Chen Baoquan: "Mind the gap": Tele-registration for structure-driven image completion. *ACM Transactions on Graphics* 32(6 - s): 1-10. November 2013.
29. Huang Hui, Wu Shihao, Cohen-Or Daniel, Gong Minglun, Zhang Hao, Li Guiqing, & Chen Baoquan: L1-medial skeleton of point cloud. *ACM Transactions on Graphics* 32(4 - SIGGRAPH): 1-8. July 2013.
30. Huang Hui, Wu Shihao, Gong Minglun, Cohen-Or Daniel, Ascher Uri, & Zhang Hao: Edge-aware point set resampling. *ACM Transactions on Graphics* 32(1): 1-12. January 2013.
31. Huang Hui, Gong Minglun, Cohen-Or Daniel, Ouyang Yaobin, Tan Fuwen, & Zhang Hao: Field-guided registration for feature-conforming shape composition. *ACM Transactions on Graphics* 31(6 - SIGGRAPH Asia): 1-11. November 2012. (Acceptance rate: 77/326=24%)
32. Liao Miao, Gao Jizhou, Yang Ruigang, & Gong Minglun: Video stereolization: Combining motion analysis with user interaction. *IEEE Transactions on Visualization and Computer Graphics* 18(7): 1079-1088. July 2012.
33. Cheng Li, Gong Minglun, Schuurmans Dale, & Caelli Terry: Real-time discriminative background subtraction. *IEEE Transactions on Image Processing* 20(5): 1401-1414. May 2011.
34. Gong Minglun & Yang Yee-Hong: Real-time stereo matching using orthogonal reliability-based dynamic programming. *IEEE Transactions on Image Processing* 16(3): 879-884. March 2007.
35. Gong Minglun & Yang Yee-Hong: Fast unambiguous stereo matching using reliability-based dynamic programming. *IEEE Transactions on Pattern Analysis and Machine Intelligence* 27(6): 998-1003. June 2005.

Refereed Papers in Prestigious Conferences:

36. Yang Ji, *Zuo Xinxin, *Wang Sen, Yu Zhenbo, Li Xingyu, Ni Bingbing, Gong Minglun, & Cheng Li: Object wake-up: 3D object rigging from a single image. *European Conference on Computer Vision*. Tel Aviv, Israel, October 24-28, 2022.
37. Zou Shihao, Guo Chuan, *Zuo Xinxin, *Wang Sen, Wang Pengyu, Hu Xiaoqin, Chen Shoushun, Gong Minglun, & Cheng Li: EventHPE: Event-based 3D human pose and shape estimation. *International Conference on Computer Vision*. Online, October 11-17, 2021. (Acceptance rate: 1617/6236=26%)
38. Guo Chuan, *Zuo Xinxin, *Wang Sen, Zou Shihao, Sun Qingyao, Deng Annan, Gong Minglun, & Cheng Li: Action2Motion: Conditioned generation of 3D human motions. *ACM Multimedia*: 2021-2029. Online, October 12-16, 2020. (Acceptance rate: 472/1698=28%)
39. Zou Shihao, *Zuo Xinxin, *Qian Yiming, *Wang Sen, Xu Chi, Gong Minglun, & Cheng Li: 3D human shape reconstruction from a polarization image. *European Conference on Computer Vision*: 351-368. Online, August 23-28, 2020. (Acceptance rate: 1361/5025=27%)
40. Wu Zhijie, Song Chunjin, Zhou Yang, Gong Minglun, & Huang Hui: EFANet: Exchangeable Feature Alignment Network for arbitrary style transfer. *AAAI Conference on Artificial Intelligence* (34): 12305-12312. New York, NY, USA, February 7-12, 2020. (Acceptance rate: 1591/7737=21%)
41. Song Chunjin, Wu Zhijie, Zhou Yang, Gong Minglun, & Huang Hui: ETNet: Error Transition Network for arbitrary style transfer. *Neural Information Processing Systems*: 670-679. Vancouver, BC, Canada, December 8-14, 2019. (Acceptance rate: 1428/6743=21%)

42. *Qian Yiming, Zheng Yinqiang, Gong Minglun, & Yang Yee-Hong: Simultaneous 3D reconstruction for water surface and underwater scene. *European Conference on Computer Vision*: 776-792. Munich, Germany, September 8-14, 2018. (Acceptance rate: 776/2439=32%)
43. *Yi Zili, Zhang Hao, Tan Ping, & Gong Minglun: DualGAN: Unsupervised dual learning for image-to-image translation. *IEEE International Conference on Computer Vision*: 2868-2876. Venice, Italy, October 22-29, 2017. (Acceptance rate: 621/2143=29%)
44. *Qian Yiming, Gong Minglun, & Yang Yee-Hong: Stereo-based 3D reconstruction of dynamic fluid surfaces by global optimization. *IEEE Conference on Computer Vision and Pattern Recognition*: 1269-1278. Honolulu, HI, USA, July 21-26, 2017. (Acceptance rate: 783/2680=29%)
45. *Qian Yiming, Gong Minglun, & Yang Yee-Hong: 3D reconstruction of transparent objects with position-normal consistency. *IEEE Conference on Computer Vision and Pattern Recognition*: 4369-4377. Las Vegas, NV, USA, June 27-30, 2016. (Acceptance rate: 643/2145=30%)
46. *Qian Yiming, Gong Minglun, & Yang Yee-Hong: Frequency-based environment matting by compressive sensing. *IEEE International Conference on Computer Vision*: 3532-3540. Santiago, Chile, December 13-16, 2015. (Acceptance rate: 525/1698=31%)
47. *Yau Timothy, Gong Minglun, & Yang Yee-Hong: Underwater camera calibration using wavelength triangulation. *IEEE Conference on Computer Vision and Pattern Recognition*: 2499-2506. Portland, OR, USA, June 25-27, 2013. (Oral, Acceptance rate: 60/1870=3.2%)
48. Gong Minglun & Cheng Li: Foreground segmentation of live videos using locally competing 1SVMs. *IEEE Conference on Computer Vision and Pattern Recognition*: 2105-2112. Colorado Springs, CO, USA, June 21-23, 2011. (Acceptance rate: 440/1677=26%)
49. Liao Miao, Zhang Qing, Wang Huamin, Yang Ruigang, & Gong Minglun: Modeling deformable objects from a single depth camera. *IEEE International Conference on Computer Vision*: 167-174. Kyoto, Japan, September 29-October 2, 2009. (Oral, Acceptance rate: 48/1327=3.6%)
50. Cheng Li & Gong Minglun: Realtime background subtraction from dynamic scenes. *IEEE International Conference on Computer Vision*: 2066-2073. Kyoto, Japan, September 29-October 2, 2009. (Acceptance rate: 308/1327=23%)
51. Wang Liang, Jin Hailin, Yang Ruigang, & Gong Minglun: Stereoscopic inpainting: Joint color and depth completion from stereo images. *IEEE Conference on Computer Vision and Pattern Recognition*: 1-8. Anchorage, AK, USA, June 24-26, 2008. (Acceptance rate: 508/1593=32%)
52. Liao Miao, Wang Liang, Yang Ruigang, & Gong Minglun: Light fall-off stereo. *IEEE Conference on Computer Vision and Pattern Recognition*: 1-8. Minneapolis, MN, USA, June 18-23, 2007. (Acceptance rate: 351/1250=28%)
53. Gong Minglun: Enforcing temporal consistency in real-time stereo estimation. *European Conference on Computer Vision* (III): 564-577. Graz, Austria, May 7-13, 2006. (Acceptance rate: 193/900=21%)
54. Gong Minglun & Yang Yee-Hong: Near real-time reliable stereo matching using programmable graphics hardware. *IEEE Conference on Computer Vision and Pattern Recognition* (I): 924-931. San Diego, CA, USA, June 20-26, 2005. (Acceptance rate: 322/1200=27%)
55. Gong Minglun & Yang Yee-Hong: Fast stereo matching using reliability-based dynamic programming and consistency constraints. *IEEE International Conference on Computer Vision* (I): 610-617. Nice, France, October 13-16, 2003. (Acceptance rate: 200/943=21%)

Other Refereed Journal Articles:

56. *Huang Xin & Gong Minglun: Enhanced face aging using dual-learning and multi-attention mechanism. *Applied Intelligence*. 2023.
57. *Wang Mingjie, *Zhou Jun, *Cai Hao, & Gong Minglun: CrowdMLP: Weakly-supervised crowd counting via multi-granularity MLP. *Pattern Recognition* 144. December 2023.
58. Liu Yilin, Cui Ruiqi, Xie Ke, Gong Minglun, & Huang Hui: PA-Net: Plane attention network for real-time urban scene reconstruction. *Computers & Graphics* 115: 254-262. October 2023.
59. Li Jiawei, Ma Weihong, Bai Qiang, Tulpan Dan, Gong Minglun, Sun Yi, Xue Xianglong, Zhao Chunjiang, & Li Qifeng: A posture-based measurement adjustment method for improving the accuracy of beef cattle body size measurement based on point cloud data. *Biosystems Engineering* 230: 171-190. June 2023.
60. *Li Yande, Lu Yonggang, Gong Minglun, Liu Li, & Zhao Ligang: Dual-channel feature disentanglement for identity-invariant facial expression recognition. *Information Sciences* 608: 410-423. August 2022.
61. *Mao Wendong, *Wang Mingjie, Huang Hui, & Gong Minglun: A robust framework for multi-view stereopsis. *The Visual Computer* 38(5): 1539-1551. May 2022.
62. Guo Chuan, *Zuo Xinxin, *Wang Sen, Liu Xinshuang, Zou Shihao, Gong Minglun, & Cheng Li: Action2video: Generating videos of human 3D actions. *International Journal of Computer Vision* 130(2): 285-315. February 2022.
63. Yang Ji, Ma Youdong, *Zuo Xinxin, *Wang Sen, Gong Minglun, & Cheng Li: 3D pose estimation and future motion prediction from 2D images. *Pattern Recognition* 124. November 2021.
64. *Wang Mingjie, *Cai Hao, *Zhou Jun, & Gong Minglun: Interlayer and intralayer scale aggregation for scale-invariant crowd counting. *Neurocomputing* 441: 128-137. June 2021.
65. *Huang Xin, *Wang Mingjie, & Gong Minglun: Fine-grained talking face generation with video reinterpretation. *The Visual Computer* 37: 95-105. September 2020.
66. *Cai Hao, *Wang Mingjie, *Mao Wendong, & Gong Minglun: No-reference image sharpness assessment based on discrepancy measures of structural degradation. *Journal of Visual Communication and Image Representation* 71. August 2020.
67. Lu Kecheng, Wang Chaoli, Wu Keqin, Gong Minglun, & *Wang Yunhai: A unified framework for exploring time-varying volumetric data based on block correspondence. *Visual Informatics* 3(4): 157-165. December 2019.
68. *Cai Hao, Li Leida, *Yi Zili, & Gong Minglun: Blind quality assessment of Gamut-mapped images via local and global statistical analysis. *Journal of Visual Communication and Image Representation* 61: 250-259. May 2019.
69. *Cai Hao, Li Leida, *Yi Zili, & Gong Minglun: Towards a blind image quality evaluator using multi-scale second-order statistics. *Signal Processing: Image Communication* 71: 88-99. February 2019.
70. *Abdelpakey Mohamed H., Shehata Mohamed S., Mohamed Mostafa M., & Gong Minglun: Adaptive framework for robust visual tracking. *IEEE Access* 6: 55273-55283. 2018.
71. Li Ke, Zou Changqing, Bu Shuhui, Liang Yun, Zhang Jian, & Gong Minglun: Multi-modal feature fusion for geographic image annotation. *Pattern Recognition* 73(1): 1-14. January 2018.

72. *Yi Zili, *Li Yang, *Ji Songyuan, & Gong Minglun: Artistic stylization of face photos based on a single exemplar. *The Visual Computer* 33(11): 1443-1452. November 2017.
73. *Wang Shiyao, Parsons Michael, Stone-Maclean Jordan, Rogers Peter, Boyd Sarah, Hoover Kristopher, Meruvia-Pastor Oscar, Gong Minglun, & Smith Andrew: Augmented reality as a telemedicine platform for remote procedural training. *Sensors* 17(10): 2294. October 2017.
74. *Yin , *Qian Yiming, & Gong Minglun: Unsupervised hierarchical image segmentation through fuzzy entropy maximization. *Pattern Recognition* 68(C): 245-259. August 2017.
75. *Yin Shibai, Zhao Xiangmo, Wang Weixing, & Gong Minglun: Efficient multilevel image segmentation through fuzzy entropy maximization and graph cut optimization. *Pattern Recognition* 47(9): 2894-2907. September 2014.
76. Wang Liang, Yang Ruigang, Gong Minglun, & Liao Miao: Real-time stereo using approximated joint bilateral filtering and dynamic programming. *Journal of Real-Time Image Processing* 9(3): 447-461. September 2014.
77. *Hoque Enamul, Hoeber Orland, & Gong Minglun: CIDER: Concept-based image diversication, exploration, and retrieval. *Information Processing & Management* 49(5): 1122-1138. September 2013.
78. *Hoque Enamul, Hoeber Orland, *Strong Grant, & Gong Minglun: Combining conceptual query expansion and visual search results exploration for web image retrieval. *Journal of Ambient Intelligence and Humanized Computing* 4(3): 389-400. June 2013.
79. Wang Liang, Gong Minglun, Zhang Chenxi, Yang Ruigang, Zhang Cha, & Yang Yee-Hong: Automatic real-time video matting using time-of-flight camera and multichannel Poisson equations. *International Journal of Computer Vision* 97(1): 104-121. March 2012.
80. *Hoque Enamul, Hoeber Orland, & Gong Minglun: Balancing the trade-offs between diversity and precision for web image search using concept-based query expansion. *Journal of Emerging Technologies in Web Intelligence* 4(1): 26-34. February 2012.
81. Gong Minglun, *Zhang Yilei, & Yang Yee-Hong: Near-real-time stereo matching with slanted surface modeling and sub-pixel accuracy. *Pattern Recognition* 44(10-11): 2701-2710. October-November 2011.
82. *Strong Grant & Gong Minglun: Similarity-based image organization and browsing using multi-resolution self organizing map. *Image and Vision Computing* 29(11): 774-786. October 2011.
83. Gong Minglun: Real-time joint disparity and disparity flow estimation on programmable graphics hardware. *Computer Vision and Image Understanding* 113(1): 90-100. January 2009.
84. Gong Minglun, Yang Ruigang, Wang Liang, & Gong Mingwei: A performance study on different cost aggregation approaches used in real-time stereo matching. *International Journal of Computer Vision* 75(2): 283-296. November 2007.
85. Gong Minglun & Yang Yee-Hong: Rayset: A taxonomy for image-based rendering. *International Journal of Image and Graphics* 6(3): 313-339. July 2006.
86. Gong Minglun & Yang Yee-Hong: Estimate large motions using the reliability-based motion estimation algorithm. *International Journal of Computer Vision* 68(3): 319-330. July 2006.
87. Gong Minglun & Yang Yee-Hong: Camera field rendering for static and dynamic scenes. *Graphical Models* 67(2): 73-99. March 2005.

88. Gong Minglun & Yang Yee-Hong: Quadtree-based genetic algorithm and its applications to computer vision. *Pattern Recognition* 37(8): 1723-1733. August 2004.
89. Gong Minglun & Yang Yee-Hong: Genetic-based stereo algorithm and disparity map evaluation. *International Journal of Computer Vision* 47(1-3): 63-77. April-June 2002.
90. Gong Minglun & Yang Yee-Hong: Layer-based morphing. *Graphical Models* 63(1): 45-59. January 2001.
91. Qin Kaihuai, Gong Minglun, Guan Youjiang, & Wang Wenping: A new method for speeding up ray tracing NURBS surfaces. *Computers & Graphics* 21(5): 577-586. September-October 1997.
92. Gong Minglun & Qin Kaihuai: Ray tracing techniques for architectural modeling and environmental images. *China Journal of Image and Graphics* 1(5): 448-454. November 1996.
93. Qin Kaihuai, Gong Minglun, Wu Bian, & Tang Zesheng: The genetic minimum weight triangulation of planar points. *Journal of Computer-Aided Design and Computer Graphics* 8(Suppl): 141-147. September 1996.
94. Qin Kaihuai, Gong Minglun, & Tong Geliang: Fast ray tracing NURBS surfaces. *Journal of Computer Science and Technology* 11(1): 17-29. January 1996.

Refereed Book Chapters:

95. *Huang Xin & Gong Minglun: Landmark-guided conditional GANs for face aging. *Lecture Notes in Computer Science* (13231), *Image Analysis and Processing*. Springer, 2022.
96. *Mao Wendong, Gong Minglun, *Huang Xin, *Cai Hao, & *Yi Zili: A global-matching framework for multi-view stereopsis. *Lecture Notes in Computer Science* (11678), *Computer Analysis of Images and Patterns*: 635-647. Springer, 2019.
97. *Yi Zili, *Li Yang, & Gong Minglun: An efficient algorithm for feature-based 3D point cloud correspondence search. *Lecture Notes in Computer Science* (10072), *Advances in Visual Computing*: 485-496. Springer, 2016.
98. *Qian Yiming, *Yuan Hao, & Gong Minglun: Budget-driven big data classification. *Lecture Notes in Computer Science* (9091), *Advances in artificial intelligence*: 71-83. Springer International Publishing, 2015.
99. *Qian Yiming, Gong Minglun, & Cheng Li: STOCS: An efficient self-tuning multiclass classification approach. *Lecture Notes in Computer Science* (9091), *Advances in artificial intelligence*: 291-306. Springer International Publishing, 2015.
100. *Strong Grant, Jensen Rune, Gong Minglun, & Elster Anne C.: Organizing visual data in structured layout by maximizing similarity-proximity correlation. *Lecture Notes in Computer Science* (8034), *Advances in Visual Computing*: 703-713. Springer Berlin Heidelberg, 2013.
101. Hoeber Orland & Gong Minglun: A granular computing perspective on image organization within an image retrieval context. *Lecture Notes in Computer Science* (7414), *Rough Sets and Knowledge Technology*: 320-328. Springer Berlin Heidelberg, 2012.
102. *Zheng Jun & Gong Minglun: Real-time image alignment for a gyro-visual hybrid pointing device. *Lecture Notes in Computer Science* (7324), *Image Analysis and Recognition* (I): 174-183. Springer Berlin Heidelberg, 2012.

103. *Hoque Enamul, *Strong Grant, Hoeber Orland, & Gong Minglun: Conceptual query expansion and visual search results exploration for web image retrieval. *Advances in Intelligent and Soft Computing* (86), *Advances in Intelligent Web Mastering* (3): 73-82. Springer Berlin Heidelberg, 2011.
104. *Strong Grant, *Hoque Enamul, Gong Minglun, & Hoeber Orland: Organizing and browsing image search results based on conceptual and visual similarities. *Lecture Notes in Computer Science* (6454), *Advances in Visual Computing*: 481-490. Springer Berlin Heidelberg, 2010.
105. *Strong Grant, Hoeber Orland, & Gong Minglun: Visual image browsing and exploration (vibe): User evaluations of image search tasks. *Lecture Notes in Computer Science* (6335), *Active Media Technology*: 424-435. Springer Berlin Heidelberg, 2010.
106. *Strong Grant & Gong Minglun: Browsing a large collection of community photos based on similarity on GPU. *Lecture Notes in Computer Science* (5359), *Advances in Visual Computing*: 390-399. Springer Berlin Heidelberg, 2008.
107. Robidoux Nicolas, Turcotte Adam, Gong Minglun, & Tousignant Annie: Fast exact area image upsampling with natural biquadratic histosplines. *Lecture Notes in Computer Science* (5112), *Image Analysis and Recognition*: 85-96. Springer Berlin Heidelberg, 2008.
108. Gong Minglun, *Langille Aaron, & Gong Mingwei: Real-time image processing using graphics hardware: A performance study. *Lecture Notes in Computer Science* (3656), *Image Analysis and Recognition*: 1217-1225. Springer Berlin Heidelberg, 2005.

Other Refereed Conference Proceeding Papers:

109. *Yang Zihan & Gong Minglun: Reconstructing 3D shapes as a union of boxes from multi-view images. *International Conference on Pattern Recognition and Intelligent Systems*. Shenyang, China, July 28-30, 2023.
110. Yi Zimu, Xie Ke, Lyu Jiahui, Gong Minglun, & Huang Hui: Where to render: Studying renderability for IBR of large-scale scenes. *IEEE Virtual Reality Conference*. Shanghai, China, March 25-29, 2023.
111. *Wang Mingjie, *Cai Hao, Dai Yong, & Gong Minglun: Dynamic mixture of counter network for location-agnostic crowd counting. *IEEE/CVF Winter Conference on Applications of Computer Vision*. Waikoloa Village, HI, USA, January 3-7, 2023.
112. *Wang Mingjie, *Cai Hao, *Zhou Jun, & Gong Minglun: Stochastic multi-scale aggregation network for crowd counting. *International Conference on Acoustics, Speech, and Signal Processing*: 2008-2012. Online, May 4-8, 2020.
113. *Wang Mingjie, *Cai Hao, *Huang Xin, & Gong Minglun: ADNet: Adaptively dense convolutional neural networks. *IEEE/CVF Winter Conference on Applications of Computer Vision*: 990-999. Snowmass Village, CO, USA, March 2-5, 2020.
114. *Huang Xin, *Wang Mingjie, & Gong Minglun: Hierarchically-fused generative adversarial network for text to realistic image synthesis. *Conference on Computer and Robot Vision*: 73-80. Kingston, ON, Canada, May 29-31, 2019. (Best Computer Vision Paper Award)
115. *Mao Wendong, *Wang Mingjie, *Zhou Jun, & Gong Minglun: Semi-dense stereo matching using dual CNNs. *IEEE/CVF Winter Conference on Applications of Computer Vision*: 1588-1597. Waikoloa Village, HI, USA, January 7-11, 2019.

116. *Wang Mingjie, *Zhou Jun, *Mao Wendong, & Gong Minglun: Multi-scale convolution aggregation and stochastic feature reuse for DenseNets. *IEEE/CVF Winter Conference on Applications of Computer Vision*: 321-330. Waikoloa Village, HI, USA, January 7-11, 2019.
117. *Cai Hao, Ye Sipan, Vardy Andrew, & Gong Minglun: 3D visual homing for commodity UAVs. *Conference on Computer and Robot Vision*: 269-276. Toronto, ON, Canada, May 9-11, 2018.
118. *Mao Wendong & Gong Minglun: Disparity filtering with 3D convolutional neural networks. *Conference on Computer and Robot Vision*: 246-253. Toronto, ON, Canada, May 9-11, 2018.
119. *Kazemi Farhad Mohammad, Banzhaf Wolfgang, & Gong Minglun: Human recognition through walking styles by multiwavelet transform. *International Conference on Information and Knowledge Technology*: 47-53. Hamadan, Iran, September 7-8, 2016.
120. *Wang Yunhai, *Qian Yiming, *Li Yang, Gong Minglun, & Banzhaf Wolfgang: Artificial multi-bee-colony algorithm for k-nearest-neighbor fields search. *The Genetic and Evolutionary Computation Conference*: 1037-1044. Denver, CO, USA, July 20-24, 2016.
121. *Chen Zizui, Shehata Mohamed S., Gong Minglun, Carnahan Heather, Dubrowski Adam, & Smith Andrew: Feasibility of a semi-automated approach to grading point of care ultrasound image generation skills. *International Conference on Image and Vision Computing New Zealand*: 1-5. Auckland, New Zealand, November 23-24, 2015.
122. Xie Xiaohua, Gong Wenyong, Gong Minglun, & Wu Tieru: Recovering intrinsic images from image sequences using total variation models. *IEEE International Conference on Image Processing*: 3570-3574. Quebec City, QC, Canada, September 27-30, 2015.
123. Gong Minglun & Cheng Li: Incorporating estimated motion in real-time background subtraction. *IEEE International Conference on Image Processing*: 3265-3268. Brussels, Belguim, September 11-14, 2011. (Oral, Acceptance rate: 336/2245=15%)
124. *Hoque Enamul, Hoeber Orland, & Gong Minglun: Evaluating the trade-offs between diversity and precision for web image search using concept-based query expansion. *International Conference on Web Intelligence and Intelligent Agent Technology* (3): 130-133. Lyon, France, August 22, 2011.
125. *Strong Grant & Gong Minglun: Data organization and visualization using self-sorting map. *Graphics Interface Conference*: 199-206. St. John's, NL, Canada, May 25-27, 2011. (Oral, Acceptance rate: 29/74=39%)
126. *Gedge Jason, Gong Minglun, & Yang Yee-Hong: Refractive epipolar geometry for underwater stereo matching. *Conference on Computer and Robot Vision*: 146-152. St. John's, NL, Canada, May 25-27, 2011. (Oral, Acceptance rate: 28/74=38%)
127. Gong Minglun, Wang Liang, Yang Ruigang, & Yang Yee-Hong: Real-time video matting using multichannel Poisson equations. *Graphics Interface Conference*: 89-96. Ottawa, ON, Canada, May 31-June 2, 2010. (Oral, Acceptance rate: 33/88=38%)
128. Liao Miao, Zhang Qing, Yang Ruigang, & Gong Minglun: A volumetric approach for merging range images of semi-rigid objects captured at different time instances. *International Symposium on 3D Data Processing, Visualization and Transmission*. Paris, France, May 17-20, 2010.
129. *Strong Grant & Gong Minglun: Organizing and browsing photos using different feature vectors and their evaluations. *International Conference on Image and Video Retrieval*: 1-8. Santorini, Greece, July 8-10, 2009. (Oral, Acceptance rate: 17/127=13%)

130. Gong Minglun & Yang Yee-Hong: Near-real-time image matting with known background. *Conference on Computer and Robot Vision*: 81-87. Kelowna, BC, Canada, May 25-27, 2009.
131. Robidoux Nicolas, Gong Minglun, Cupitt John, Turcotte Adam, & Martinez Kirk: CPU, SMP and GPU implementations of Nohalo level 1, a fast co-convex antialiasing image resampler. *International C* Conference on Computer Science & Software Engineering*: 185-195. Montreal, QC, Canada, May 19-21, 2009.
132. Gong Minglun & Cheng Li: Real-time foreground segmentation on GPUs using local online learning and global graph cut optimization. *International Conference on Pattern Recognition*: 1-4. Tampa, FL, USA, December 8-11, 2008.
133. *Zhang Yilei, Gong Minglun, & Yang Yee-Hong: Local stereo matching with 3D adaptive cost aggregation for slanted surface modeling and sub-pixel accuracy. *International Conference on Pattern Recognition*: 1-4. Tampa, FL, USA, December 8-11, 2008. (Oral, Acceptance rate: 295/1631=18%)
134. Liao Miao, Wang Liang, Yang Ruigang, & Gong Minglun: Real-time light fall-off stereo. *IEEE International Conference on Image Processing*: 1380-1383. San Diego, CA, USA, October 12-15, 2008.
135. *Zhang Yilei, Gong Minglun, & Yang Yee-Hong: Real-time multi-view stereo algorithm using adaptive-weight Parzen window and local winner-take-all optimization. *Conference on Computer and Robot Vision*: 113-120. Windsor, ON, Canada, May 28-30, 2008. (Oral)
136. Gong Minglun, Selzer Jason M., Lei Cheng, & Yang Yee-Hong: Real-time backward disparity-based rendering for dynamic scenes using programmable graphics hardware. *Graphics Interface Conference*: 241-248. Montreal, QC, Canada, May 28-30, 2007. (Oral, Acceptance rate: 43/89=48%)
137. Gong Minglun: Images restoration using an iterative dynamic programming approach. *Conference on Computer and Robot Vision*: 395-402. Montreal, QC, Canada, May 28-30, 2007.
138. Gong Minglun & Yang Yee-Hong: Disparity flow estimation using orthogonal reliability-based dynamic programming. *International Conference on Pattern Recognition* (II): 70-73. Hong Kong, August 20-24, 2006. (Oral, Acceptance rate: 311/2029=15%)
139. Gong Minglun: A GPU-based algorithm for estimating 3D geometry and motion in near real-time. *Conference on Computer and Robot Vision*: 10. Quebec City, QC, Canada, June 7-9, 2006. (Oral, Acceptance rate: 35/113=35%)
140. *Langille Aaron & Gong Minglun: An efficient match-based duplication detection algorithm. *Conference on Computer and Robot Vision*: 64. Quebec City, QC, Canada, June 7-9, 2006.
141. Wang Liang, Gong Mingwei, Gong Minglun, & Yang Ruigang: How far can we go with local optimization in real-time stereo matching: A performance study on different cost aggregation approaches. *International Symposium on 3D Data Processing, Visualization and Transmission*: 129-136. Chapel Hill, NC, USA, June 14-16, 2006.
142. Wang Liang, Liao Miao, Gong Minglun, Yang Ruigang, & Nister David: High-quality real-time stereo using adaptive cost aggregation and dynamic programming. *International Symposium on 3D Data Processing, Visualization and Transmission*: 798-805. Chapel Hill, NC, USA, June 14-16, 2006. (Oral)
143. Gong Minglun & Yang Ruigang: Image-gradient-guided real-time stereo on graphics hardware. *International Conference on 3-D Digital Imaging and Modeling*: 548-555. Ottawa, ON, Canada, June 13-17, 2005. (Oral, Acceptance rate: 39/127=31%)

144. Gong Minglun & Yang Yee-Hong: Estimate large motions using reliability-based dynamic programming. *IEEE International Conference on Image Processing* (IV): 2559-2562. Singapore, October 24-27, 2004.
145. Gong Minglun & Yang Yee-Hong: Uniform sampling for image-based rendering shiny objects. *Eurographics Short Papers*: 73-76. Grenoble, France, August 30-September 3, 2004.
146. Gong Minglun: Motion estimation using dynamic programming with selective path search. *International Conference on Pattern Recognition* (IV): 203-206. Cambridge, United Kingdom, August 23-26, 2004.
147. Gong Minglun & Yang Yee-Hong: Multi-resolution genetic algorithm and its application in motion estimation. *International Conference on Pattern Recognition* (I): 644-647. Quebec City, QC, Canada, August 11-15, 2002.
148. Gong Minglun & Yang Yee-Hong: Multi-resolution stereo matching using genetic algorithm. *CVPR Workshop on Stereo and Multi-Baseline Vision*: 21-29. Kauai, HI, USA, December 9-10, 2001. (Oral, Acceptance rate: 19/66=29%)
149. Gong Minglun & Yang Yee-Hong: Genetic-based multiresolution color image segmentation. *Vision Interface*: 141-148. Ottawa, ON, Canada, June 7-9, 2001.
150. Gong Minglun & Yang Yee-Hong: The rayset and its applications. *Graphics Interface Conference*: 71-80. Ottawa, ON, Canada, June 7-9, 2001. (Oral, Acceptance rate: 27/56=48%)
151. Qin Kaihuai, Wang Wenping, & Gong Minglun: A genetic algorithm for the minimum weight triangulation. *International Conference on Evolutionary Computation*: 541-546. Indianapolis, IN, USA, April 13-16, 1997.

Refereed Conference Posters and Presentations:

152. Enamul Hoque, Orland Hoeber, & Minglun Gong: A concept-based interactive visualization approach to web image search. *IEEE Information Visualization Conference (Poster)*. Providence, RI, USA, October 23-28 2011.
153. Aaron Maynard & Minglun Gong: Real-time seismic wave modeling and visualization. *Graphics Interface (Poster)*. Ottawa, ON, Canada, May 31-June 2 2010.
154. Huamin Wang, Miao Liao, Qing Zhang, Ruigang Yang, & Minglun Gong: Image-based physics-driven modeling of 4D fluid. *Mid-West Graphics Workshop*. Iowa City, IA, USA, October 19-21 2007.
155. Minglun Gong & Yee-Hong Yang: The super sprite: A graphic primitive based on light field. *Western Computer Graphics Symposium*. Silver Star, BC, Canada, March 24-27 2002.

Patents and Copyrights:

- Hui Huang, Shihao Wu, Minglun Gong, Matthias Zwicker, & Daniel Cohen-Or: Three-dimensional point cloud model re-establishment method and apparatus. *US patent*. 2017.
- Hui Huang, Zhuming Hao, Minglun Gong, Dani Lischinski, & Daniel Cohen-Or: Navigation method based on three-dimensional scene. *PCT patent*, WO2016179825 A1. November 17, 2016. (Filled on May 14, 2015)

- Yang Zhou, Hui Huang, Kangxue Yin, Xu Cao, Minglun Gong, Hao Zhang, & Daniel Cohen-Or: Generalized cylinder-based 3D model decomposition method and system. *Chinese patent*. 2015.
- Hui Huang, Shihao Wu, Wei Sun, Pinxin Long, Minglun Gong, Daniel Cohen-Or, & Oliver Deussen: Point cloud three-dimensional model reconstruction method and system. *PCT patent*, WO2015188445 A1. December 17, 2015. (Filled on August 19, 2014)
- Hui Huang, Zhuming Hao, Minglun Gong, Dani Lischinski, & Daniel Cohen-Or: Scene importance based navigation system. *Software Copyright*, Chinese Registration No: 2015SR066036. 2015. (Registration date: April 21, 2015)
- Hui Huang, Kangxue Yin, Minglun Gong, Baoquan Chen, & Yunhai Wang: Image repairing method and device. *PCT patent*, WO2014169561 A1. October 23, 2014. (Filled on September 13, 2013)
- Minglun Gong: Video segmentation method. *US patent*, US20130329987 A1. December 12, 2013. (Filled on June 11, 2012)
- Yunhai Wang, Tianhua Wang, Minglun Gong, Baoquan Chen, Hui Huang, & Xiaohua Xie: Three-dimensional model segmentation method and segmentation system. *Chinese patent*, CN103218818 A. July 24, 2013. (Filled on April 19, 2013)
- Minglun Gong: Real-time image and video matting. *PCT patent*, US8320666 B2. February 17, 2011. (Filled on August 13, 2010; Granted on November 27, 2012)
- Minglun Gong: Fast stereo matching using reliability-based dynamic programming. *Software Copyright*, Canadian Registration No: 1023053, US Registration No: TXU001192131. August 23, 2004. (Registration date: August 23, 2004)

Invited Talks (other than conference presentations):

- Visibility-aware pixelwise view selection for multi-view stereo matching
  2023.09.01 *Visual Computing Center, Shenzhen Univ.* Shenzhen, China
- Generalization in machine learning for counting problems
  2023.08.31 *Visual Computing Center, Shenzhen Univ.* Shenzhen, China
  2023.07.29 *Keynote speech at Int. Conf. on Pattern Recognition and Intelligent Systems.* Online
  2023.03.29 *CSE/SHARCNET Seminar, McMaster Univ.* Hamilton, ON, Canada
- Enhancing learning capability of CNNs for fundamental vision problems
  2022.04.20 *Dept. of Computer Science, Memorial Univ.* St. John's, NL, Canada
  2021.12.17 *College of Computer Science & Software Engineering, Shenzhen Univ*. Online
- Deep neural networks for conditional visual synthesis
  2021.12.01 *College of Computer Science & Software Engineering, Shenzhen Univ*. Online
- Novel network architectures for arbitrary image style transfer
  2020.07.17 *Visual Computing Summer School, Shandong Univ*. Online
  2020.05.14 *Symposia talk at Conference on Computer and Robot Vision*. Online
- Capturing transparent objects: From appearances to full 3D models
  2018.11.15 *Faculty of Computer Science, Dalhousie Univ.* Halifax, NS, Canada

- Two routes for image-to-image translation: Rule-based vs. learning-based
  2018.09.20 *Visual Computing Center, Shenzhen Univ.* Shenzhen, China
  2017.12.15 *Center for Research in Computer Vision, Univ. of Central Florida*. Orlando, FL, USA
  2017.11.17 *NSERC CREATE Data Analytics & Visualization Bootcamp*. Toronto, ON, Canada
- Rendering and modeling of transparent objects
  2016.09.02 *Visual Computing Center, Shenzhen Univ.* Shenzhen, China
- Quality-driven autonomous scanning of complex objects
  2016.10.28 *Dept. of Computer Science, Memorial Univ.* St. John's, NL, Canada
  2016.05.20 *GeoICT Lab, York Univ.* Toronto, ON, Canada
- Modeling and analyzing 3D shapes using clues from 2D images
  2015.06.04 *Symposia talk at Conference on Computer and Robot Vision*. Halifax, NS, Canada
  2015.04.09 *Dept. of Computer Science, Memorial Univ.* St. John's, NL, Canada
- Tele-registration: A field-guided approach for feature-conforming shape composition
  2013.05.21 *Bioinformatics Institute, A*STAR*. Singapore
- Arranging arbitrary data into structured layouts
  2013.05.20 *Bioinformatics Institute, A*STAR*. Singapore
- Real-time video object cutout using locally competing 1SVMs
  2012.10.24 *Dept. of Computer Science, Nanjing Univ.* Nanjing, China
  2012.08.16 *Emerging Information and Technology Conference*. Toronto, ON, Canada
- Real-time video matting: Extraction of fuzzy foreground subjects from live footage
  2010.04.02 *Dept. of Computer Science, Memorial Univ.* St. John's, NL, Canada
- Real-time background subtraction using support vector machine
  2010.03.03 *Dept. of Computer Science, Nanjing Univ.* Nanjing, China
  2010.02.25 *Institute of Computing Technology of Chinese Academy of Sciences*. Beijing, China
  2008.10.28 *Coast-to-Coast Seminar, ACEnet/D-Drive/IRMACS/SHARCNET/WestGrid*. Online
- Joint color and depth inpainting from stereo images
  2009.06.01 *CS VML Seminar, Simon Fraser Univ.* Burnaby, BC, Canada
- Separating foreground from backgrounds
  2009.05.25 *Tutorial at Conference on Computer and Robot Vision*. Kelowna, BC, Canada
- Organizing and browsing large photo collections based on similarity on GPU
  2008.12.05 *Faculty of Computer Science, Dalhousie Univ.* Halifax, NS, Canada
- Real-time rendering of dynamic scenes on graphics hardware
  2007.11.22 *Dept. of Computer Science, Memorial Univ.* St. John's, NL, Canada
- Depth recovery using light fall-off property
  2007.07.23 *Dept. of Computing Science, Univ. of Alberta*. Edmonton, AB, Canada
- Real-time image-based modeling and rendering for dynamic scenes
  2006.04.28 *Dept. of Computer Science, Memorial Univ.* St. John's, NL, Canada

- A real-time GPU-based disparity flow estimation algorithm
  2005.08.09 *Dept. of Computing Science, Univ. of Alberta*. Edmonton, AB, Canada
- Toward real-time marker-less motion tracking
  2005.06.28 *Workshop on Computer Simulation & Virtual Reality Applications*. Sudbury, ON, Canada
- Analyze and synthesize dynamic scenes using programmable graphics hardware
  2004.10.27 *Center for Visualization and Virtual Environment, Univ. of Kentucky*. Lexington, KY, USA
  2004.08.18 *Microsoft Research Asia*. Beijing, China
- Toward interactive 3D movies and immersive tele-presence
  2003.04.22 *Dept. of Math and Computer Science, Laurentian Univ.* Sudbury, ON, Canada
  2003.04.02 *Dept. of Math and Computer Science, Univ. of Lethbridge*. Lethbridge, AB, Canada
- The rayset taxonomy and novel image-based rendering approaches
  2003.03.27 *Visual Computing Seminar, Univ. of Alberta*. Edmonton, AB, Canada
- Multi-resolution genetic algorithm and its applications in computer vision
  2002.09.25 *Visual Computing Seminar, Univ. of Alberta*. Edmonton, AB, Canada

TEACHING EXPERIENCES:

University of Guelph:

Graduate courses taught:

• CIS*6320	Image Processing Algorithms and Applications	Summer 2023
		Winter 2022
• UNIV*6080	Computational Thinking for Artificial Intelligence	Fall 2020

Memorial University:

Graduate courses developed and taught:

• COMP 690A/B	Research Methods in Computer Science	2018~2019
• COMP 6909	Fundamentals of Computer Graphics	Winter 2016
• COMP 6784	General Computing on Graphics Hardware	Spring 2014
		Winter 2012
		Fall 2010
		Winter 2010
		Winter 2008
• COMP 6786	Computational Photography	Winter 2009

Other graduate courses taught:

• COMP 6752	Applications of Computer Graphics	Fall 2014
		Winter 2014
		Winter 2012

Undergraduate courses developed and taught:

• COMP 4768	Software Development for Mobile Devices	Winter 2014
		Fall 2010
		Fall 2009
• COMP 3301	Visual Computing and Applications	Winter 2018

Other undergraduate courses taught:

• COMP 4751	Computer Graphics	Winter 2014
		Winter 2012
		Fall 2009
		Fall 2008
		Fall 2007

University of Alberta:

Graduate courses cotaught:

• CMPUT 605	Individual Study on Compressive Sensing in Computational Photography	Fall 2014
• CMPUT 605	Individual Study on Underwater Computational Photography	Fall 2009

Laurentian University:

Undergraduate courses taught:

• COSC 4306	Computer Graphics	Fall 2006
		Winter 2006
		Fall 2004
		Fall 2003
• COSC 4426	Topics in Computer Vision	Winter 2007
		Winter 2005
• COSC 4706	Directed Studies in Graphics Hardware Programming	Fall 2006
		Winter 2005
• COSC 4106	Analysis of Algorithms	Fall 2005
• COSC 4456	Parallel Computing	Winter 2004
• COSC 2947	Object Oriented Programming Using C++	Fall 2006
		Fall 2005
		Fall 2004

- COSC 2406 Assembly Language Programming — Winter 2006, Winter 2005, Winter 2004
- COSC 2007 Data Structures II — Winter 2007

University of Saskatchewan:

Undergraduate courses taught:

- CMPT 115 Principles of Computer Science — Summer 2000, Summer 1999

STUDENT ADVISING:

Current Students:

2021.09 ~ **Yukun Shi** **Ph.D. candidate, Univ. of Guelph**

2023.09 ~ **Zhentao Huang** **Ph.D. candidate, Univ. of Guelph**

Former PostDocs:

2019.11 ~ 2021.03 **Sen Wang** **Postdoctoral fellow, Univ. of Alberta (Co-sup: Dr. L. Cheng)**
Present Position: Huawei Canada

2019.10 ~ 2021.03 **Xinxin Zuo** **Postdoctoral fellow, Univ. of Alberta (Co-sup: Dr. L. Cheng)**
Present Position: Huawei Canada

2014.02 ~ 2014.06 **Shibai Yin** **Postdoctoral fellow, Memorial Univ.**
Present Position: Associate Professor at Southwestern University of Finance and Economics

2013.09 ~ 2014.10 **Yunhai Wang** **Postdoctoral fellow, Memorial Univ.**
Present Position: Professor at Shandong University

Former Doctorial Students:

2021.09 ~ 2022.12 **Yande Li** **Joint Ph.D. Training, Lanzhou Univ.**
Funded by China Scholarship Council

2017.09 ~ 2022.08 **Mingjie Wang** **Ph.D., Univ. of Guelph**
Dissertation: Enhancing learning capability of Convolutional Neural Networks for fundamental vision problems
Recipient of "Dean's Doctoral Award"
Present Position: Associate Professor, Zhejiang Sci-Tech University, China

2017.09 ~ 2018.08 **Jun Zhou** **Joint Ph.D. Training, Dalian Univ. of Tech.**
Funded by China Scholarship Council
Present Position: Associate Professor, Dalian Maritime University, China

2017.01 ~ 2020.12 **Mohamed Hamed Abdelpakey** **Ph.D., Memorial Univ. (Co-sup: Dr. M. Shehata)**
Dissertation: Visual object tracking in dynamic scenes
Thesis defense passed with distinction

2016.09 ~ 2022.05 **Xin Huang** **Ph.D., Memorial Univ.**
Dissertation: Deep neural networks for conditional visual synthesis
Recipient of "Chinese Government Scholarship" and "Fellow of the School of Graduate Studies"
Present Position: Assistant Professor, Zhejiang Sci-Tech University, China

2015.09 ~ 2019.08 **Wendong Mao** **Ph.D., Memorial Univ.**
Dissertation: Learning-based stereo matching for 3D reconstruction
Recipient of "Dean's Doctoral Award" and "Fellow of the School of Graduate Studies"
Present Position: Instructional Staff at Memorial University

2015.09 ~ 2022.08 **Hao Cai** **Ph.D., Memorial Univ.**
Dissertation: Blind image quality assessment: From heuristic-based to learning-based
Recipient of "Chinese Government Scholarship"

2014.09 ~ 2018.11 **Yiming Qian** **Ph.D., Univ. of Alberta (Co-sup: Dr. Y.-H. Yang)**
Dissertation: Light transport acquisition and 3D reconstruction in the presence of light refraction
Winner of "Alberta Innovates Technology Futures Graduate Student Scholarship," "CS Early Achievement Award" and "Dean's Excellence Award"
Present Position: Assistant Professor, University of Manitoba, Canada

2014.09 ~ 2018.08 **Zili Yi** **Ph.D., Memorial Univ.**
Dissertation: From rule-based to learning-based image-conditional image generation
Thesis defense passed with distinction
Present Position: Associate Professor, Nanjing University, Canada

2012.09 ~ 2013.06 **Shibai Yin** **Joint Ph.D. Training, Chang'an Univ.**
Funded by China Scholarship Council

2009.09 ~ 2013.05 **Grant Strong** **Ph.D., Memorial Univ.**
Dissertation: Arranging arbitrary data into structured layouts
Funded by Alexander Graham Bell Canada Graduate Scholarship

Former Master Theses:

2021.09 ~ 2023.08 **Zhentao Huang** **M.Sc. thesis, Univ. of Guelph**
Thesis: Visibility-aware pixelwise view selection for multi-view stereo matching

2020.09 ~ 2023.04 **Zihan Yang** **M.Sc. thesis, Univ. of Guelph**
Thesis: Reconstructing 3D shapes as a union of boxes from multi-view images

2016.01 ~ 2017.08 **Shiyao Wang** **M.Sc. thesis, Memorial Univ. (Co-sup: Drs. O. Meruvia-Pastor & A. Smith)**
Thesis: Augmented reality as a telemedicine platform for remote procedural training

2016.01 ~ 2017.05 **Xue Cui** **M.Sc. thesis, Memorial Univ.**
Thesis: Lattice Boltzmann Method and vortex methods for fluid animation

2015.09 ~ 2018.11 **Farhad Kazemi** **M.Sc. thesis, Memorial Univ. (Co-sup: Dr. W. Banzhaf)**
Thesis: Automatic high content screening using deep learning

2014.09 ~ 2017.11 **Zizui Chen** **M.Sc. thesis, Memorial Univ. (Co-sup: Drs. M. Shehata, S. Czarnuch, & A. Smith)**
Thesis: A computer vision based ultrasound operator skill evaluation

2014.09 ~ 2019.09 **Songyuan Ji** **M.Sc. thesis, Memorial Univ. (Co-sup: Drs. Y. Chen & T. Hu)**
Thesis: Deep learning for genome-wide association studies and the impact of SNP locations

2013.09 ~ 2015.12 **Hao Yuan** **M.Sc. thesis, Memorial Univ. (Co-sup: Dr. J. Tang)**
Thesis: Self-tuning one-class support vector machines for data classification
Present Position: PhD student, Washington State Univ.

2012.09 ~ 2014.08 **Yiming Qian** **M.Sc. thesis, Memorial Univ.**
Thesis: Labeling large scale social media data using budget-driven one-class SVM classification

2011.09 ~ 2014.04 **Timothy Yau** **M.Sc. thesis, Univ. of Alberta (Co-sup: Dr. Y.-H. Yang)**
Thesis: Underwater camera calibration and 3D reconstruction
Funded by NSERC Postgraduate Scholarship
Recipient of "CS Outstanding MSc Thesis Award"

2010.01 ~ 2012.02 **Enamul Hoque** **M.Sc. thesis, Memorial Univ. (Co-sup: Dr. O. Hoeber)**
Thesis: Concept-based query expansion and interactive visualization for web image search
Present Position: Assistant Professor at York University

2009.01 ~ 2011.07 **Jason Gedge** **M.Sc. thesis, Univ. of Alberta (Co-sup: Dr. Y.-H. Yang)**
Thesis: Underwater stereo matching and its calibration
Funded by NSERC Postgraduate Scholarship and iCORE Graduate Student Scholarship in Information and Communications Technology

2008.09 ~ 2010.11 **Jun Zheng** **M.Sc. thesis, Memorial Univ.**
Thesis: Real-time image registration and its app. in motion-visual hybrid controller

2007.09 ~ 2009.08 **Grant Strong** **M.Sc. thesis, Memorial Univ.**
Thesis: Similarity-based image organization and browsing
Recipient of the "Fellow of the School of Graduate Studies" designation and the "University Medal for Excellence in Graduate Studies"

2006.09 ~ 2008.09 **Yilei Zhang** **M.Sc. thesis, Univ. of Alberta (Co-sup: Dr. Y.-H. Yang)**
Thesis: Towards real-time adaptive support weight stereo algorithms
Recipient of Alberta Ingenuity R&D Associates Award upon graduation

Former Master Projects:

2015.01 ~ 2015.04 **Liyao Deng** **M.Sc. project, Memorial Univ.**
Project: Real-time rigid body simulation on GPUs

2014.09 ~ 2014.12 **Hemanth Billapati** **M.Sc. project, Memorial Univ.**
Project: LocationTracker: An Android app for location tracking and visualization

2014.05 ~ 2014.08 **Naji Mahmoud** **M.Sc. project, Memorial Univ.**
Project: Visualizing user calling behavior on mobile devices

2014.05 ~ 2014.08 **Peiwen Wang** **M.Sc. project, Memorial Univ.**
Project: An online user study tool for geo-related information retrieval

2014.05 ~ 2014.08 **Sri Sudana** **M.Sc. project, Memorial Univ.**
Project: Real-time interactive fluid simulation on GPUs

2013.09 ~ 2013.12 **Zequan Feng** **M.Sc. project, Memorial Univ.**
Project: An interactive interface for extracting foreground objects from videos

2012.05 ~ 2012.08 **Guangyu Liu** **M.Engr. project, Memorial Univ.**
Project: Navigating in and interacting with virtual environments

2012.01 ~ 2013.08 **Mustafa Bhuiyan** **M.Sc. project, Memorial Univ. (Co-sup: Dr. O. Hoeber)**
Project: Image search results organization based on metadata and visual features

2010.05 ~ 2012.04 **Zhi Li** **M.Sc. project, Memorial Univ. (Co-sup: Dr. O. Hoeber)**
Project: Visualizing travel photos

Former Bachelor Honor's Theses:

2008.09 ~ 2008.12 **Jason Gedge** **B.Sc. honors thesis, Memorial Univ.**
Thesis: Automatic panorama construction - An in-depth look into image stitching
Recipient of NSERC Postgraduate Scholarship upon graduation

2005.09 ~ 2006.04 **Donald Morgan** **B.Sc. honors thesis, Laurentian Univ.**
Thesis: Neural networks & reinforce. learning for motor control of a virtual creature
Recipient of NSERC Postgraduate Scholarship upon graduation

2005.09 ~ 2006.04 **Mathieu Dupont** **B.Sc. honors thesis, Laurentian Univ.**
Thesis: Texture synthesis - A study of single and multiresolution algorithms

2004.09 ~ 2005.04 **Aaron Langille** **B.Sc. honors thesis, Laurentian Univ.**
Thesis: Digital image forgery detection

2003.09 ~ 2004.04 **Kevin Brosseau** **B.Sc. honors thesis, Laurentian Univ.**
Thesis: A strategic card game using A.I. with multiple levels of ingenuity

Former Undergraduate Projects:

2008.09 ~ 2009.04 **Kenneth Smith** **B.Engr. final project, Memorial Univ. (Co-sup: Dr. B. Veitch)**
Project: GPU-based real-time 3D fluid simulator

2008.05 ~ 2008.08 **Jason Gedge** **Undergrad intern, Memorial Univ.**
Project: Scene modeling and rendering using computational photography
Funded by NSERC Undergraduate Student Research Award

2006.05 ~ 2006.08 **Adam Turcotte** **Undergrad intern, Laurentian Univ.**
Project: Image enhancement and enlargement for digital photography
Funded by NSERC Undergraduate Student Research Award
Recipient of NSERC Postgraduate Scholarship upon graduation

2005.05 ~ 2005.08 **Aaron Langille** **Undergrad intern, Laurentian Univ.**
Project: Digital image forgery detection using graphics hardware

2004.05 ~ 2004.08 **John Whissell** **Undergrad intern, Laurentian Univ.**
Project: Photorealistic image synthesis using graphics hardware
Recipient of NSERC Postgraduate Scholarship upon graduation

2003.09 ~ 2003.12 **Matthew Bardeggia B.Sc. final project, Laurentian Univ.**
Project: Non-photorealistic rendering with Cg

RESEARCH GRANTS:

Support Currently Held:

2023 ~ 2028 **NSERC Individual Discovery Grants** **$205,000**
Five-year award at $41,000 per year for a research program titled "Capture, analysis, and synthesis of visual contents."

2019 **University of Guelph Start-up Fund** **$50,000**

Support Held in the Past:

2017 ~ 2023 **NSERC Individual Discovery Grants** **$156,000**
Six-year award at $26,000 per year for a research program titled "Quality-driven autonomous 3D reconstruction of large-scale scenes."

2019 ~ 2020 **NSERC Research Tools and Instruments (with Drs. Bing Chen & Helen Zhang)** **$146,243**
Funded for an infrastructure application titled "vEER: A visualization platform for environmental emergency response decision support."

2018 ~ 2019 **Innovation for Defence Excellence and Security Fund** **$79,970**
Subcontract for a project titled "Full motion video and still imagery tracking toolset."

2017 ~ 2019 **NSERC Research Tools and Instruments (with Drs. Rodolphe Devillers, Mohamed S. Shehata, & George Mann)** **$148,833**
Funded for an infrastructure application titled "A UAV-based system for hybrid LiDAR and photogrammetry sensing."

2017 ~ 2019 **Memorial University Headship Research Allowance** **$60,000**

2017 ~ 2018 **Joint NSERC Engage/Mitacs Accelerate Program** **$40,000**
Support for collaboration with AltumView Systems Inc. on a project titled "Robust algorithms for real-world face recognition." Cash contribution from AltumView Systems Inc. ($7,500) is included.

2017 ~ 2018 **Harris Centre MMSB Waste Management Applied Research Fund** **$11,400**
Funded for a project titled "Vision-based pay-as-you-throw system."

2016 ~ 2018 **Memorial University Multidisciplinary Fund** **$10,000**
Funded for a multidisciplinary project titled "Immersive telepresence for remote and rural health."

2012 ~ 2017 **NSERC Individual Discovery Grants** **$110,000**
Five-year award at $22,000 per year for a research program titled "Computer vision algorithms for live video processing using programmable graphics hardware."

2014 ~ 2015 **GRAND NCE Collaborative Network Investigator Award** **$7,377**
Funding for participation in a project titled "Data- and user-driven modelling of visual content."

2007 ~ 2012 **NSERC Individual Discovery Grants** **$100,000**
Five-year award at $20,000 per year for a research program titled "Real-time dynamic scene modeling and rendering".

2010 ~ 2011 **Cupids 400 Project (with Drs. Yuanzhu Chen & Orland Hoeber)** **$34,033**

2009 ~ 2011 **RDC Industrial Research and Innovation Fund** **$50,000**
Funded for a project titled "Parallel computer vision algorithms for real-time processing on GPUs."

2009 **Springboard Patent & Legal Fund Awards** **$10,000**
Funded for a project titled "Real-time video matting for online background replacement". Institutional matching fund ($2,250) is included.

2007 **Memorial University Start-up Fund** **$25,000**

2004 ~ 2007 **NSERC Individual Discovery Grants** **$42,000**
Three-year award at $14,000 per year for a research program titled "Dynamic image-based scene modeling and rendering".

2005 ~ 2006 **CFI New Opportunities Fund** **$46,623**
Funded for an infrastructure project titled "A CPU/GPU cluster for scene analysis and synthesis". Matching funds from Ontario Innovation Trust ($16,080) and business contribution ($14,463) are included.

2004 ~ 2006 **CITO Research Partnerships Program (with Dr. Peter Kaiser)** **$170,000**
Business cash ($30,000) and in-kind ($64,000) contributions are included. This is a two-year program for supporting collaboration between science and engineering. The project is titled "Vision systems for underground support assessment".

2005 **Laurentian University Research Fund** **$2,800**

2004 ~ 2005 **NSERC Research Tools and Instruments** **$22,168**
Contribution from Laurentian University ($2,500) is included. Funding is for setting up a multi-camera system that will be used in the "Dynamic image-based modeling and rendering" project.

2004	**Laurentian University Research Fund**	**$2,025**
2003	**Laurentian University Start-up Fund**	**$10,000**
2002	**University of Alberta Killam Research Allowance**	**$2,000**

HONORS AND AWARDS:

2019.05 **Best Paper Award, Canadian Image Processing and Pattern Recognition Society**
Awarded for our paper titled "Hierarchically-fused Generative Adversarial Network for text to realistic image synthesis" at the 16th Conference on Computer and Robot Vision.

2016.12 **Best Paper Award, ISVC Steering Committee**
Awarded for our paper titled "An efficient algorithm for feature-based 3D point cloud correspondence search" at the 12th International Symposium on Visual Computing.

2015.06 **Best Paper Award, Canadian Artificial Intelligence Association**
Awarded for our paper titled "Budget-Driven Big Data Classification" at the 28th Canadian Conference on Artificial Intelligence.

2005.11 **New Opportunity Fund Award, Canada Foundation for Innovation**
Granted to selected new faculties who are taking up their first full-time academic appointments at eligible Canadian universities.

2002.05 ~ 2003.08 **Izaak Walton Killam Memorial Scholarship, University of Alberta**
Granted for two years at $20,100 annual plus tuition and fees. This is the most prestigious graduate award administered by the university. About 20 students are honored each year, chosen among doctoral students from all disciplines.

1998.09 ~ 2001.08 **University Graduate Scholarship, University of Saskatchewan**
A merit-based award granted for three years at about $16,000 per year.

1996.06 **The Second Prize of the Science & Technology Progress**
Issued by the State Education Commission of China for the project developed by our research group in Tsinghua University.

1995.10 **Guanghua Scholarship, Tsinghua University**
A one-time ¥1,200 scholarship awarded to top graduate students.

1994.07 **Outstanding Graduate, Harbin Engineering University**
About 10 students are honored each year upon their graduations, chosen from over a thousand graduates.

1994.03 **Meritorious team in the Mathematical Contest in Modeling**
Awarded to our 3-person team by the Consortium for Mathematics and Its Applications of US.

1991.09 ~ 1994.07 **University Scholarships, Harbin Engineering University**
Received several scholarships at different levels during my undergraduate study.

ADMINISTRATIVE SERVICES:

Management Roles:

- Director, School of Computer Sci., Univ. of Guelph 2019~pres.
- Head, Dept. of Computer Sci., Memorial Univ. 2016~2019
- Deputy Head (Graduate Studies), Dept. of Computer Sci., Memorial Univ. 2013~2015

Chair of Committees:

- Tenure and Promotion Committee, Univ. of Guelph 2019~pres.
- Faculty Search Committee, Univ. of Guelph 2019~pres.
- Graduate Studies Committee, Memorial Univ. 2013~2015
- Faculty Search Committee, Memorial Univ. 2009~2010, 2015~2016

Member of Standing Committees:

- Graduate Studies Committee, Memorial Univ. 2007~2010
- Undergraduate Studies Committee, Memorial Univ. 2010~2011
- Faculty Search Committee, Memorial Univ. 2010~2011, 2013~2015
- Promotion and Tenure Committee, Memorial Univ. 2013~2014
- Faculty of Science Graduate Studies Committee, Memorial Univ. 2013~2015
- Resource Committee, Laurentian Univ. 2003~2004, 2005~2007
- CO-OP Committee, Laurentian Univ. 2004~2005

Member of Ad-hoc Committees:

- Search Committee for AVP and Chief Information Officer, Univ. of Guelph 2023
- Engineering/Computer Science Expansion Steering Committee, Univ. of Guelph 2022~2023
- Search Committee for Physics Department Chair, Univ. of Guelph 2021~2022
- Joint Search Committee for CRC Tier II Chair in Bioinformatics, Memorial Univ. 2016
- Associate Dean of Science Review Committee, Memorial Univ. 2015
- Computer Science Headship Search Committee, Memorial Univ. 2012
- Computer Science Headship Review Committee, Memorial Univ. 2012
- Strategic Planning Committee, Memorial Univ. 2012
- APICS and Programming Competition Committee, Memorial Univ. 2008~2010
- Graduate Program Planning Committee, Laurentian Univ. 2005~2007

Reviewer for Academic Programs:

- IQAP review for the Computer Science program, Nipissing Univ. 2022

- Centre for Future Mobility Research and Innovation review, York Univ. 2022

PROFESSIONAL SERVICES:

Editorial Board Member for Journals:

- Signal Processing Letters, IEEE 2020.09~pres.
- Pattern Recognition, Elsevier, 2014.06~pres.
- ISRN Artificial Intelligence, Hindawi, 2011.06~2013.02

Program Committee Member for Conferences:

- IEEE Int. Conf. on Computer Vision, 2007, 2011, 2013
- IEEE Conf. on Computer Vision and Pattern Recognition, 2008, 2011, 2012, 2013
- European Conf. on Computer Vision 2018
- National Conf. on Artificial Intelligence 2019, 2022, 2023
- Int. Joint Conf. on Artificial Intelligence 2021, 2022, 2023
- Asian Conf. on Computer Vision 2016
- Graphics Interface, 2010, 2011, 2012, 2015
- Conf. on Computer and Robot Vision, 2007, 2008, 2009, 2010, 2011, 2015, 2018
- Asian Conf. on Machine Learning 2021
- Int. Conf. on Signal Processing and Multimedia Applications 2016, 2017, 2019
- Int. Conf. on Multimedia Systems and Signal Processing 2017
- Int. Conf. on Virtual Reality 2023
- Int. Conf. on Computer Vision Theory and Applications 2023
- Int. Conf. on Image Processing and Vision Engineering 2021
- Int. Conf. on Smart Multimedia 2018
- Int. Conf. on Computer-Aided Design and Computer Graphics 2015, 2017, 2021, 2023
- Int. Conf. on Pattern Recognition and Intelligent Systems 2022, 2023
- Int. Conf. on Image, Video Processing and Artificial Intelligence 2020
- Int. Conf. on Machine Vision and Machine Learning 2023
- Int. Conf. on Signal and Image Processing, 2013
- Int. Conf. on Software Engineering and Artificial Intelligence 2023
- Int. Joint Conf. on Computer Vision and Pattern Recognition 2023
- Int. Symp. on Visual Computing 2023
- Int. Symp. on Intelligent Systems Technologies and Applications 2018
- IEEE Symp. on Web Society, 2011
- Technical Briefs and Poster of SIGGRAPH Asia, 2013, 2014, 2015, 2017
- Pacific-Rim Symp. on Image and Video Technology 2019
- Int. Workshop on Pattern Recognition 2019, 2022
- Workshop on Artificial Intelligence with and for Learning Sci. 2023

- Canadian Conf. on Electrical and Computer Engineering, 2009
- Int. C* Conf. on Computer Science & Software Engineering, 2009

Section Chair for Conferences:

- Graphics Interface, 2010, 2011
- Computer and Robot Vision, 2006
- Artificial Intelligence 2015

Reviewer for Journals:

- Transactions on Graphics, ACM
- Transactions on Intelligent Systems and Technology, ACM
- Transactions on Pattern Analysis and Machine Intelligence, IEEE
- Transactions on Visualization and Computer Graphics, IEEE
- Transactions on Circuits and Systems for Video Technology, IEEE
- Transactions on Image Processing, IEEE
- Transactions on Multimedia, IEEE
- Transactions on Signal Processing, IEEE
- Transactions on Artificial Intelligence, IEEE
- Transactions on Broadcasting, IEEE
- Transactions on Neural Networks and Learning Systems, IEEE
- Transactions on Systems, Man and Cybernetics, IEEE
- Signal Processing Letters, IEEE
- International Journal of Computer Vision, Springer
- Journal of Medical Systems, Springer
- Journal of Real-Time Image Processing, Springer
- Machine Vision and Applications, Springer
- Multimedia Systems, Springer
- Neural Computing and Applications, Springer
- Computational Visual Media, Springer
- Advances in Space Research, Elsevier
- Computer-Aided Design, Elsevier
- Computer Vision and Image Understanding, Elsevier
- Computers & Graphics, Elsevier
- Image and Vision Computing, Elsevier
- Journal of Visual Communication and Image Representation, Elsevier
- Medical Engineering & Physics, Elsevier
- Neurocomputing, Elsevier
- Pattern Recognition, Elsevier
- Pattern Recognition Letter, Elsevier

- Robotics and Autonomous Systems, Elsevier
- Signal Processing: Image Communication, Elsevier
- Computer Graphics Forum, Wiley
- Transactions on Computer Vision and Applications, IPSJ
- International Journal of Image and Graphics, World Scientific
- International Journal of Pattern Recognition and Artificial Intelligence, World Scientific
- Journal of Electronic Imaging, SPIE
- Journal on Image and Video Processing, EURASIP
- Online Information Review, Emerald
- Entropy, MDPI
- The Journal of Ocean Technology, Marine Institute

Reviewer for Conferences:

- SIGGRAPH
- SIGGRAPH Asia
- Eurographics
- European Conference on Computer Vision
- IEEE Scientific Visualization
- Eurographics Conference on Visualization
- Eurographics Workshop on Rendering
- Pacific Conference on Computer Graphics and Applications
- International Conference on Pattern Recognition
- IEEE Winter Conference on Applications of Computer Vision
- International Conference on 3D Vision
- Asian Conference on Computer Vision
- Joint Conference on 3D Imaging Modeling Processing Visualization and Transmission
- International Symposium on 3D Data Processing Visualization and Transmission
- Symposium on Geometry Processing
- Shape Modeling International
- Computational Aesthetics
- Computer Science and Electronic Engineering Conference

Examiner for Ph.D. Thesis:

• Keivan Nalaie Sup: Dr. Paul Fieguth	McMaster Univ.	2023.07
• Amir Nazemi Sup: Dr. Paul Fieguth	Univ. of Waterloo	2023.06
• Yangdi Lu Sup: Dr. Wenbo He	McMaster Univ.	2022.09

- Terrance DeVries — Univ. of Guelph — 2021.09
  Sup: Dr. Graham Taylor
- Bojian Wu — Univ. of Chinese Academy of Sciences — 2019.11
  Sup: Dr. Hui Huang
- Elham Etemad — Dalhousie Univ. — 2018.11
  Sup: Dr. Qigang Gao
- Yixin Chen — McGill Univ. — 2017.10
  Sup: Dr. Wenbo He
- Ke Xie — Univ. of Chinese Academy of Sciences — 2016.05
  Sup: Drs. Baoquan Chen & Hui Huang
- Qian Zheng — Univ. of Chinese Academy of Sciences — 2015.04
  Sup: Drs. Baoquan Chen & Hui Huang
- Feilong Yan — Univ. of Chinese Academy of Sciences — 2014.11
  Sup: Drs. Baoquan Chen & Hui Huang
- Yangyan Li — Univ. of Chinese Academy of Sciences — 2013.05
  Sup: Dr. Baoquan Chen
- Gang Hu — Dalhousie Univ. — 2012.06
  Sup: Dr. Qigang Gao
- Ke Jia — Australian National Univ. — 2012.05
  Sup: Dr. Nianjun Liu
- Xiaonan Wu — Memorial Univ. — 2011.12
  Sup: Dr. Wolfgang Banzhaf
- Ting Hu — Memorial Univ. — 2010.01
  Sup: Dr. Wolfgang Banzhaf

Examiner for M.Sc. Thesis:

- Abdullah Al-Hayali — Univ. of Guelph — 2022.09
  Sup: Dr. Eran Ukwatta
- Raj Patel — Laurentian Univ. — 2021.08
  Sup: Drs. Meysar Zeinali & Kalpdrum Passi
- Sara Ayubian — Memorial Univ. — 2017.07
  Sup: Drs. Shadi Alawneh, George Miminis, Martin Richard
- Abdelrahman Ahmed — Memorial Univ. — 2016.09
  Sup: Dr. Mohamed Shehata
- Wei Sun — Univ. of Chinese Academy of Sciences — 2015.04
  Sup: Dr. Hui Huang
- Sahand Seifi — Memorial Univ. — 2015.03

Sup: Dr. Oscar Meruvia-Pastor

- Jiapei Zhang — Univ. of Chinese Academy of Sciences — 2013.05
  Sup: Dr. Baoquan Chen
- Man Liu — Memorial Univ. — 2011.03
  Sup: Dr. Siwei Lu
- Jason Normore — Memorial Univ. — 2010.12
  Sup: Dr. Wolfgang Banzhaf
- David Churchill — Memorial Univ. — 2009.06
  Sup: Dr. Andrew Vardy
- Ferdaus Syeda — Memorial Univ. — 2008.11
  Sup: Dr. Andrew Vardy

Reviewer for Granting Agencies:

- Natural Sciences and Engineering Research Council of Canada (NSERC)
- Canada Foundation for Innovation (CFI)
- Mathematics of Information Technology and Complex Systems (Mitacs)
- Oak Ridge Associated Universities (ORAU)
- ETH Zurich Research Grants
- Natural Science Foundation of China (NSFC)