Mian Wei

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Education

PhD Candidate, University of Toronto — Summer 2017 - Present
Advisor: Kiriakos N Kutulakos

Masters of Science, University of Toronto — Fall 2015 - Spring 2017
Advisor: Kiriakos N Kutulakos

Honours Bachelor of Science, University of Toronto — Fall 2011 - Spring 2015
Specialist in Computer Science and Major in Mathematics

Scholarships & Awards

ICCV Best Paper (Marr Prize) Award	2023
NSERC Canadian Graduate Scholarship ($35 000 per year)	2019 - 2021
NSERC Postgraduate Scholarship ($21 000 per year)	2018 - 2019
Computer Science Departmental Entrance Scholarship (top 2%)	2015
Alexander Graham Bell Canada Graduate Scholarship - Masters	2015

Publications

Passive Ultra-Wideband Single-Photon Imaging
Mian Wei*, Sotiris Nousias*, Rahul Gulve, David B Lindell, Kiriakos N Kutulakos. ICCV 2023.
Best Paper (Marr Prize) award, 2 out of 2161 accepted papers.

Dual-Port CMOS Image Sensor with Regression-Based HDR Flux-to-Digital Conversion and 80ns Rapid-Update Pixel-Wise Exposure Coding
Rahul Gulve, Roberto Rangel, Ayandev Barman, Don Nguyen, **Mian Wei**, Motasem A Sakr, Xiaonong Sun, David B Lindell, Kiriakos N Kutulakos, Roman Genov. ISSCC 2023.

A 39,000 Subexposures/s CMOS Image Sensor with Dual-tap Coded-exposure Data-memory Pixel for Adaptive Single-shot Computational Imaging
Rahul Gulve, Navid Sarhangnejad, Gairik Dutta, Motasem Sakr, Don Nguyen, Roberto Rangel, Wenzheng Chen, Zhengfan Xia, **Mian Wei**, Nikita Gusev, Esther YH Lin, Xiaonong Sun, Leo Hanxu, Nikola Katic, Ameer Abdelhadi, Andreas Moshovos, Kiriakos N Kutulakos, Roman Genov. VLSI Technology and Circuits 2022.

End-to-End Video Compressive Sensing using Anderson-Accelerated Unrolled Networks
Yuqi Li, Miao Qi, Rahul Gulve, **Mian Wei**, Roman Genov, Kiriakos N Kutulakos, Wolfgang Heidrich. ICCP 2020.

Dual-Tap Pipelined-Code-Memory Coded-Exposure-Pixel CMOS Image Sensor for Multi-Exposure Single-Frame Computational Imaging
Navid Sarhangnejad, Nikola Katic, Zhengfan Xia, **Mian Wei**, Nikita Gusev, Gairik Dutta, Rahul Gulve, Harel Haim, Manuel Moreno Garcia, David Stoppa, Kiriakos N Kutulakos, Roman Genov. ISSCC 2019.

Coded Two-bucket Cameras for Computer Vision

Mian Wei, Navid Sarhangnejad, Zhengfan Xia, Nikita Gusev, Nikola Katic, Roman Genov, Kiriakos N Kutulakos. ECCV 2018.
Oral, 59 out of 776 accepted papers.

Bend-a-Rule: a Fabrication-Based Workflow for 3D Planar Contour Acquisition
Mian Wei and Karan Singh. SCF 2017.

Additive Models for Conditional Copulas
Avideh Sabeti, **Mian Wei**, Radu V. Craiu STAT 2014, 3; pages 300-312.

Patents

Roman Genov, Kiriakos N Kutulakos, Navid Sarhangnejad, Nikola Katic, **Mian Wei**. (2019), Method and system for pixel-wise imaging, US Patent: 10229943

Professional Services

Conference reviewer

Computer Vision and Pattern Recognition Conference (CVPR)	2023 - 2024
European Conference on Computer Vision (ECCV)	2024
International Conference on Computer Vision (ICCV)	2023
International Conference on Computational Imaging (ICCP)	2023

Journal reviewer

Transactions on Computational Imaging (TCI)	2019, 2024
International Journal of Computer Vision (IJCV)	2020

Work Experience

Teaching Assistant

CSC165: Mathematical Reasoning for CS	Fall 2013, Winter 2024
CSC236: Introduction to Theory of Computation	Winter 2014, Fall 2020, Fall 2023
CSC263: Data Structures and Analysis	Fall 2021
CSC320: Introduction to Visual Computing	Spring 2015 - Winter 2021
CSC373: Algorithm Design and Analysis	Fall 2014 - Summer 2022
CSC418: Computer Graphics	Summer 2020
CSC473: Advanced Algorithm Design	Spring 2015 - Winter 2021
CSC2503: Foundations of Computer Vision	Fall 2015 - Fall 2017
CSC2529: Computational Imaging	Fall 2022
CSC2503: Computational Imaging and 3D Sensing	Winter 2023, Winter 2024