Zhihang Zhong

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EDUCATION

The University of Tokyo

Tokyo, JP

Ph.D. – Computer Science (GPA: 4.00/4.00)

Sep. 2020 - Sep. 2023

Supervisor: Imari Sato; Collaborator: Yoichi Sato, and Yinqiang Zheng

The University of Tokyo – IME Program

Tokyo, JP

M.E. – Precision Engineering (GPA: 3.93/4.00)

Oct. 2018 - Sep. 2020

Supervisor: Jun Ota

Zhejiang University – Chu Kochen Honors College (top 5%)

Hangzhou, CN

B.E. – Mixed Class, Mechatronics Engineering (GPA: 3.84/4.00)

Sep. 2014 - Aug. 2018

Relevant courses: computer vision, computational photography, machine/deep learning, HCI, robotics

SKILLS

• Programming: Python, C/C++, Matlab, LATEX

• Tools: PyTorch, OpenCV, Qt/PyQt, Arduino, STM32

WORK EXPERIENCES

Visual Computing Group, Microsoft Research Asia

Beijing, CN

JEM intern, supervised by Han Hu, Yuhui Yuan and Ji Li

Apr. 2022 - now

Project: aesthetic-aware image smart cropping

Visual Computing Group, Microsoft Research Asia

Beijing, CN

D-CORE intern, supervised by Stephen Lin, Zhirong Wu and Xiao Sun

Sep. 2021 - Mar. 2022

Project: multi-modal blur decomposition

Image Research Lab, Tokyo Research Center, Huawei

Tokyo, JP

Intern, supervised by Bo Zheng and Ye Gao

Aug. 2019 - Aug. 2020

Project: efficient video deblurring and real-world dataset collection

PUBLICATIONS

Conferences

- [ECCV 2022] Zhihang Zhong, Xiao Sun, Zhirong Wu, Yinqiang Zheng, Stephen Lin, Imari Sato: "Animation from Blur: Multi-modal Blur Decomposition with Motion Guidance." Proceedings of the European Conference on Computer Vision.
- [ECCV 2022] Zhihang Zhong, Mingdeng Cao, Xiao Sun, Zhirong Wu, Zhongyi Zhou, Yinqiang Zheng, Stephen Lin, Imari Sato: "Bringing Rolling Shutter Images Alive with Dual Reversed Distortion." *Proceedings of the European Conference on Computer Vision*. (Oral, top 2.7%)
- [ECCV 2022] Yusheng Wang, Yunfan Lu, Ye Gao, Lin Wang, Zhihang Zhong, Yinqiang Zheng, Atsushi Yamashita: "Efficient Video Deblurring Guided by Motion Magnitude." Proceedings of the European Conference on Computer Vision.
- [CVPR 2022] Mingdeng Cao, Zhihang Zhong, Jiahao Wang, Yinqiang Zheng, Yujiu Yang: "Learning Adaptive Warping for Real-World Rolling Shutter Correction." Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition.
- [CVPR 2021] Zhihang Zhong, Yinqiang Zheng, Imari Sato: "Towards Rolling Shutter Correction and Deblurring in Dynamic Scenes." Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition.

- [ECCV 2020] Zhihang Zhong, Ye Gao, Yinqiang Zheng, Bo Zheng: "Efficient Spatio-Temporal Recurrent Neural Network for Video Deblurring." Proceedings of the European Conference on Computer Vision. (Spotlight, top %5)
- [IUI 2020] Zhihang Zhong, Chingszu Lin, Taiki Ogata, Jun Ota: "Multi-attention Deep Recurrent Neural Network for Nursing Action Evaluation Using Wearable Sensor." Proceedings of the 25th International Conference on Intelligent User Interfaces.

Journals

- [IJCV 2022] Zhihang Zhong, Ye Gao, Bo Zheng, Yinqiang Zheng, Imari Sato: "Real-world Video Deblurring: A Benchmark Dataset and An Ecient Recurrent Neural Network." International Journal of Computer Vision.
- [IoTJ 2021] Zhihang Zhong, Chingszu Lin, Masako Kanai-Pak, Jukai Maeda, Yasuko Kitajima, Mitsuhiro Nakamura, Noriaki Kuwahara, Taiki Ogata, Jun Ota: "Multistream Temporal Convolutional Network for Correct/Incorrect Patient Transfer Action Detection Using Body Sensor Network." IEEE Internet of Things Journal.

Preprints

- [Under Review] **Zhihang Zhong**, Mingxi Cheng, Zhirong Wu, Yuhui Yuan, Yinqiang Zheng, Ji Li, Han Hu, Stephen Lin, Yoichi Sato, Imari Sato: "ClipCrop: Conditioned Cropping Driven by Vision-Language Model."
- [Under Review] **Zhihang Zhong**, Mingdeng Cao, Xiang Ji, Yinqiang Zheng, Imari Sato: "Blur Interpolation Transformer for Real-World Motion from Blur."

ACTIVITIES

Talks

• Animation from Motion Blur or Rolling Shutter Distortion, Mobile Intelligent Photography & Imaging (MIPI) Workshop 2022

Services

• Program Committee/Reviewers: CVPR, ECCV, ACCV, BMVC, TPAMI, IJCV, TCSVT

AWARDS

- Research Fellowship for Young Scientists (200,000 Yen/Month; Research grant: up to 1,500,000 Yen/Year), JSPS DC, Apr. 1^{st} , 2023 Mar. 31^{st} 2025
- Fellowship for Creation of Intelligent World (180,000 Yen/Month; Research grant: $340,000 \, \text{Yen/Year}$), The University of Tokyo, Apr.1st, 2021 Sep.30th 2023
- Microsoft Research Asia D-CORE 2021 Fellowship (10,000\$), Nov. 17, 2020
- Excellent Master Thesis Award, Department of Precision Engineering, School of Engineering, The University of Tokyo, 2020.
- ullet Monbukagakusho Honors Scholarship (48,000 Yen/Month), JASSO, Oct.1 st 2018 Mar.31 st 2019.
- Master Kong Dream Scholarship (900,000 Yen), 2017.