# Zhihang Zhong

• https://github.com/zzh-tech

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### EDUCATION

The University of Tokyo
Ph.D., Department of Computer Science (GPA: 4.00/4.00)
Sep. 2020 - Sep. 2023
The University of Tokyo - IME Program
M.E., Department of Precision Engineering (GPA: 3.93/4.00)
Oct. 2018 - Sep. 2020
Zhejiang University - Chu Kochen Honors College (top 5%)
B.E., Department of 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, TensorFlow, OpenCV, Qt/PyQt, SQLite, Arduino, STM32

## EXPERIENCES

# Visual Computing Group, Microsoft Research Asia

Beijing, CN

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

Apr. 2021 - now

o Project: aesthetic-aware image smart cropping.

# Visual Computing Group, Microsoft Research Asia

Beijing, CN

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

Sep. 2021 - Mar. 2022

o Project: multi-modal blur decomposition.

## The University of Tokyo & National Institute of Informatics

Tokyo, JP

Ph.D. candidate, supervised by Imari Sato and Yinqiang Zheng

Sep. 2020 - present

o Project: joint tasks among video deblurring, interpolation, and rolling shutter correction.

## Image Research Lab, Tokyo Research Center, Huawei

Tokyo, JP

Intern, supervised by Bo Zheng and Ye Gao

Aug. 2019 - Aug. 2020

o Project: efficient video deblurring and real-world dataset collection.

## Research into Artifacts, Center for Engineering, The University of Tokyo

Tokyo, JP

M.E., supervised by Jun Ota

Sep. 2018 - Aug. 2020

o Project: automatic nursing skill assessment based on body sensor network.

## State Key Lab of Fluid Power & Mechatronic Systems, Zhejiang University

Hangzhou, CN

B.E., supervised by Xin Li

Aug. 2017 - Jun. 2018

• Project: ultra-wide-band tracking system for wall-climbing robots.

# **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.

- [ECCVW 2022] Mingdeng Cao, Zhihang Zhong, Yanbo Fan, Jiahao Wang, Yong Zhang, Jue Wang, Yujiu Yang, Yinqiang Zheng: "Towards Real-World Video Deblurring by Exploring Blur Formation Process." Proceedings of the European Conference on Computer Vision. (AIM Workshop)
- [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 Efficient 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*.

## 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 Yen/Year), The University of Tokyo, Apr.1 $^{st}$ , 2021 Sep.30 $^{th}$  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.