ZIHAO W. WANG

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EDUCATION

Northwestern University   2015 - 2020
Ph.D. in Computer Science   *Evanston, IL*

Thesis: Synergy of physics and learning-based models in computational imaging and display
Advisor: Oliver Cossairt

Zhejiang University   Chu Ko-chen Honors College   2011 - 2015
B.Eng. in Optics, GPA: 3.9/4   *Hangzhou, China*

Thesis: Hamiltonian ray tracing for gradient index lens. (completed at MIT)

WORK EXPERIENCE

Apple Inc.   09/2020 - present
Computer vision algorithm engineer

Internships   2017-2019

· 06-09/2019 **Peking University**   *visiting student*   Boxin Shi   Beijing, China
· 01-05/2019 **Apple Inc.**   *display engineering intern*   Xiaokai Li   Cupertino, CA
· 06-09/2018 **Microsoft Research**   *research intern*   Sing Bing Kang   Redmond, WA
· 04-08/2017 **Light Labs Inc.**   *research intern*   Dikpal Reddy   Palo Alto, CA

COMPUTER SKILLS

Programming   Python, Tensorflow, MATLAB, C++
Graphics   Adobe Illustrator/Photoshop/After Effects/Premiere Pro, Unity

SELECTED AWARDS & SCHOLARSHIPS

CKC-Harvard-MIT undergraduate thesis fellowship, Zhejiang University ($ 10,000)   2014-2015
Excellent Student Awards, Zhejiang University   2011-2013

TEACHING

EECS 395/495 Intro to Computational Photography (TA)   Fall 2016
EECS 110 Intro to Python (TA)   Winter 2017, 2018
ELEC_ENG 395/495: Computational Photography Seminar (guest lecturer)   Winter 2020

SELECTED PUBLICATIONS

Refereed conference proceedings

3. **Joint filtering of intensity images and neuromorphic events for high-resolution noise-robust imaging** ZW. Wang, P. Duan, O. Cossairt, A. Katsaggelos, T. Huang, B. Shi, The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), June 2020.

2. **Event-driven video frame synthesis** ZW. Wang, W. Jiang, K. He, B. Shi, A. Katsaggelos, O. Cossairt, The IEEE International Conference on Computer Vision (ICCV) Workshops, November 2019. (Oral presentation)

1. **Privacy-preserving action recognition using coded aperture videos** ZW. Wang, V. Vineet, F. Pittaluga, S. Sinha, O. Cossairt, SB. Kang, The IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, June 2019. (Oral presentation.)

Refereed journals

6. **Snapshot multifocal light field microscopy** K. He, X. Wang, ZW. Wang, H. Yi, NF. Scherer, AK. Katsaggelos, and O. Cossairt, Optics Express 28, 12108-12120 (2020) (doi: 10.1364/OE.390719)

5. **Computational multifocal microscopy** K. He, Z. Wang, X. Huang, X. Wang, S. Yoo, P. Ruiz, I. Gdor, A. Selewa, NJ. Ferrier, N. Scherer, M. Hereld, A. Katsaggelos, O. Cossairt, Biomedical Optics Express 9, 6477-6496 (2018) (doi: 10.1364/BOE.9.006477)

4. **Gloss evaluation from soft and hard metrologies** Z. Wang, L. Xu, Y. Hu, F. Mirjalili, and MR. Luo, J. Opt. Soc. Am. A 34, 1679-1686 (2017) (doi: 10.1364/JOSAA.34.001679)

3. **Subsampled phase retrieval for temporal resolution enhancement in lensless on-chip holographic video** Z. Wang, D. Ryu, K. He, G. Zheng, R. Horstmeyer, and O. Cossairt, Biomedical Optics Express 8, 1981-1995 (2017) (doi: 10.1364/BOE.8.001981)

2. **Compressive holographic video** Z. Wang, L. Spinoulas, K. He, L. Tian, O. Cossairt, AK. Katsaggelos, and H. Chen, Optics Express 25, 250-262 (2017) (doi: 10.1364/OE.25.000250)

1. **Looking into special surface effects: glint impression and diffuse coarseness** ZW. Wang, MR. Luo, Coloration Technology, 132: 153-161 (2016) (doi: 10.1111/cote.12203)

SERVICE & ACTIVITIES

Leadership Founding member of CSPAC, Northwestern University 2017; Founder of a Chinese theatre club at Northwestern University (SIGTheater)

Reviewer *Optics*: OSA Optics Letters, Optics Express, Applied Optics, JOSA A, Continuum; *Computational imaging*: IEEE Transactions on Computational Imaging, IS&T Journal of Imaging Science and Technology; *Computer vision*: British Machine Vision Conference (BMVC'20)