

ZIHUI (RAY) WU

Curriculum Vitae (September 2020)

zwu2@caltech.edu \diamond raywu0930.github.io

EDUCATION

California Institute of Technology (Caltech)

Pasadena, CA

Ph.D. student in Computing and Mathematical Sciences

Sep. 2020 — May 2026 (expected)

Research advisor: Katherine L. Bouman

Washington University in St. Louis (WUSTL)

St. Louis, MO

Bachelor of Science in Computer Science

Aug. 2016 — May 2020

Second major: Mathematics

Research advisor: Ulugbek S. Kamilov

RESEARCH INTERESTS

My research interests lie at the intersection of computational imaging, optimization, and machine learning.

PUBLICATIONS

3. Y. Sun, **Z. Wu**, B. Wohlberg, and U. S. Kamilov, “Scalable Plug-and-Play ADMM with Convergence Guarantees,” arXiv:2006.03224, 2020.
2. **Z. Wu**, Y. Sun, A. Matlock, J. Liu, L. Tian, and U. S. Kamilov, “SIMBA: Scalable Inversion in Optical Tomography using Deep Denoising Priors,” *IEEE Journal of Selected Topics in Signal Processing (JSTSP)*, vol. 14, no. 6, pp. 1163-1175, Oct. 2020, doi: 10.1109/JSTSP.2020.2999820.
1. **Z. Wu**, Y. Sun, J. Liu, and U. S. Kamilov, “Online Regularization by Denoising with Applications to Phase Retrieval,” *Proceedings of the IEEE International Conference on Computer Vision Workshop (ICCVW)*, 2019. [Oral presentation]

RESEARCH AND WORK EXPERIENCE

- *Research Assistant*, Caltech
Sep. 2020 — present
— Graduate Research Assistant with Dr. Katherine L. Bouman. Pasadena, CA
- *Website Developer*, Beijing Hengxinqihua Information Technology Co., Ltd.
May 2017 — Jul. 2017 Beijing, China
- *Research Assistant*, Institute of Computing Technology, Chinese Academy of Sciences
Sep. 2015 — Nov. 2015 Beijing, China
— Worked as a research assistant for the project “Video-based Object Tracking and Recognition.”

HONORS

- *Kortschak Scholars Graduate Fellowship*, Caltech 2020
- *Dean’s List*, WUSTL FL2016 — FL2019 (all semesters except SP2020 due to COVID-19)
- Selected member of Engineering’s Mentor Collective program, WUSTL 2018, 2019
- *Certificate of Distinction*, American Mathematics Competitions 2015

SKILLS

Programming

- MATLAB, Python, Java, C++, R

- NumPy, TensorFlow, PyTorch

Languages

- English (fluent), Chinese (native), French (beginner)

LEADERSHIP EXPERIENCE

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|---|-----------------------|
| • <i>President</i> , Washington University China Connection | Mar. 2018 — Mar. 2019 |
| • <i>President</i> , Wa Shu Chinese Theater Club | Apr. 2017 — Apr. 2018 |