

# ZIHUI (RAY) WU

Curriculum Vitae (July 2021)  
zwu2@caltech.edu  $\diamond$  zihuiwu.github.io

## EDUCATION

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**California Institute of Technology (Caltech)**  
*Ph.D.* student in Computing and Mathematical Sciences  
Research advisor: Katherine L. Bouman

Pasadena, CA  
Sep. 2020 — May 2026 (expected)

**Washington University in St. Louis (WUSTL)**  
*Bachelor of Science* in Computer Science  
Second major: Mathematics  
Research advisor: Ulugbek S. Kamilov

St. Louis, MO  
Aug. 2016 — May 2020

## RESEARCH INTERESTS

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

## PUBLICATIONS

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4. T. Yin\*, **Z. Wu\***, H. Sun, A. V. Dalca, Y. Yue, and K. L. Bouman, “End-to-End Sequential Sampling and Reconstruction for MR Imaging,” *Machine Learning for Health (ML4H)*, 2021.
  - **Best Paper Award**
  - Accepted as posters to ICCP 2021 and CVPR 2021 Computational Cameras and Displays Workshop
3. Y. Sun, **Z. Wu**, Xiaojian Xu, B. Wohlberg, and U. S. Kamilov, “Scalable Plug-and-Play ADMM with Convergence Guarantees,” *IEEE Transactions on Computational Imaging*, vol. 7, pp. 849-863, 2021.
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.
  - Also accepted as paper to ICIIP 2021.
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

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- *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

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- *Best Paper Award*, Machine Learning for Health (ML4H 2021) 2021

- *Kortschak Scholars Graduate Fellowship*, Caltech 2020 — 2022
- *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

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### *Programming*

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

### *Languages*

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

## LEADERSHIP EXPERIENCE

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- *President*, Washington University China Connection Mar. 2018 — Mar. 2019
- *President*, Wa Shu Chinese Theater Club Apr. 2017 — Apr. 2018