Zihao Zou

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Educational Background

University of California-Irvine	Irvine, CA
College of Engineering, B. S. in Computer Engineering	June 2021

Washington University in St. Louis	St. Louis, MO
McKelvey School of Engineering, M. S. in Computer Science	June 2023

Research Interests

I have broad interest in Computer Vision, Computational Imaging, Deep Learning, Signal/Image Processing and Large-scale Optimization.

My current primary emphasis lies in the exploration of generative models and neural representations.

Publication

- Z. Zou, J. Liu, B. Wohlberg and U. S. Kamilov, "Deep Equilibrium Learning of Explicit Regularization Functionals for Imaging Inverse Problems," in IEEE Open Journal of Signal Processing. (Website) (Paper)
- J. Hu, S. Shoushtari, Z. Zou, J. Liu, Z. Sun and U. S. Kamilov, "Robustness of Deep Equilibrium Architectures to Changes in the Measurement Model," ICASSP 2023 - 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Rhodes Island, Greece, 2023 (Paper)

Research Experience

Computational Imaging Group	Washington University in
Principal Investigator: Dr. Ulugbek Kamilov	Saint Louis
• Neural Representation of 3D Medical Data	2021 - Present
• Generative Model for Inverse Problems	
• Deep Model-based Architecture with Convergence Guarantees for Image Restoration	
• Robustness of Learned Priors to Changes of Measurement Model	

HERO Lab	University of California,
Principal Investigator: Dr. Cao Huang	Irvine, CA
• Devices for Personalized Health	September 2019 -
• Cordless Electrocardiogram (ECG) and Photoplethysmogram (PPG) Monitor	September 2020
• Blood Pressure Estimation with Multi Body Signals	

Work Experience

Embedded System Engineer	Techphant. Inc
• Compression Algorithm for Resource-Limited Devices	October 2020 - May 2021
• Embedded Device Programming	Guangzhou, China

Teacher Assistant	Washington University in
Course: Natural Language Processing	Saint Louis
• Collaborated in designing the course curriculum and content.	September 2022 -
• Organized and conducted regular TA coordination meetings.	January 2023
	Saint Louis, MO

Skills

Languages: Chinese (Native Speaker), English
Programming Skills: Python, C/C++/CUDA