

PENGCHENG WANG

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EDUCATION

University of Southern California (USC)

Aug 2023 - Present

PhD student in Biomedical Engineering

University of Science and Technology of China (USTC)

Sep 2018 - Jul 2022

Bachelor in Electrical Engineering (Special Talent Program in Artificial Intelligence)

ASSISTANTSHIP EXPERIENCES

University of Southern California

Aug 2023 - Present

Served as a research assistant, focused on Medical Image Processing

Stanford University

Sep 2021 - Jun 2023

Served as a research assistant, focused on Biomedical AI

RESEARCH EXPERIENCES

Deep-Learning-based Vessel Wall Imaging Rapid Acquisition Package (VWI-RAP)

Aug 2024 - Present

University of Southern California

Advisor: [Dr. Zhaoyang Fan](#)

Automated Abdominal Organs Segmentation Based on MRI

Sep 2023 - Present

University of Southern California

Advisor: [Dr. Zhaoyang Fan](#) & [Dr. Dan Ruan](#)

Pre-surgical Molecular Subgroup Prediction in Medulloblastoma

Mar 2022 - Jun 2023

Stanford University & Beijing Tiantan Hospital

Advisor: [Dr. Yan-Ran Wang](#) & [Dr. Liang-Qiong Qu](#)

AI-enabled Screening and Diagnosis of Cardiovascular Disease

Jan 2022 - Jun 2023

Stanford University & Fuwai Hospital

Advisor: [Dr. Yan-Ran Wang](#)

Low-Count Whole-Body PET/MRI Restoration

Oct 2021 - Mar 2022

Stanford University

Advisor: [Dr. Yan-Ran Wang](#) & [Dr. Liang-Qiong Qu](#)

PUBLICATIONS

Advancing Presurgical Non-Invasive Molecular Subgroup Prediction in Medulloblastoma Using Artificial Intelligence and MRI Signatures

[Yan-Ran Wang](#)^{*}, [Pengcheng Wang](#)^{*}, [Zihan Yan](#)^{*}, ... , [Lu Tian](#), [Feng Wu](#), [Jian Gong](#).

Cancer Cell 2024

Screening and Diagnosis of Cardiovascular Disease Using Artificial Intelligence-Enabled Cardiac Magnetic Resonance Imaging

[Yan-Ran Wang](#)^{*}, [Kai Yang](#)^{*}, [Yi Wen](#)[†], [Pengcheng Wang](#)[†], [Yuepeng Hu](#)[†], ... , [Joseph C. Wu](#), [Shihua Zhao](#)

Nature Medicine 2024

Low-count whole-body PET/MRI restoration: an evaluation of dose reduction spectrum and five state-of-the-art artificial intelligence models

[Yan-Ran Wang](#), [Pengcheng Wang](#), [Lisa Christine Adams](#), ... , [Daniel Rubin](#), [Heike E. Daldrup-Link](#)

European Journal of Nuclear Medicine and Molecular Imaging (EJNMMI) 2023

^{*}[†] equal contribution

CONFERENCES

Multi-contrast MR-driven deep learning for abdominal multi-organ segmentation (McDAMOS)

[Pengcheng Wang](#), [Dan Ruan](#), [Junzhou Chen](#), [Jiayu Xiao](#), [Diane Ling](#), [Lijun Ma](#), [Wensha Yang](#), [Zhaoyang Fan](#)

AAPM 2024 Oral Presentation

Vessel Wall Imaging-dedicated Rapid Acquisition Package (VWI-RAP): Toward a 5-min robust MR protocol
Pengcheng Wang, Junzhou Chen, Zhenjia Wang, Qi Yang, Steven Yong Cen, William Mack, Nasim Sheikh-Bahaei, Zhaoyang Fan
ISMRM 2025 Oral Presentation, The ISMRM Magna cum Laude Merit Award

SKILLS

Programming skills: Python (Pytorch, Tensorflow), C, Matlab, R
Software: OsiriX/Horos, ITK-SNAP, 3D Slicer, ANTs

AWARDS

- 2nd place of Best Posters in the 26th Grodins Symposium, USC 2024
- Scholarship of Talent Program in Artificial Intelligence, USTC 2022
- Outstanding Student Scholarship, USTC 2021, 2020, 2019
- Outstanding Freshman Scholarship, USTC 2018

TEACHING

- Served as a Teaching Assistant for Computer Programming 2021