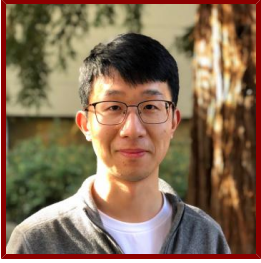


# Stanford

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## Sen Wang

Instructor, Radiology

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### Bio

#### BIO

Dr. Wang is a research scientist in the Wang group. He previously completed his postdoctoral fellowship in the Wang group and his BS and PhD in the Department of Engineering Physics at Tsinghua University. Sen's research interests focus on technologies and methods for image processing, reconstruction, and recognition, especially in the medical field. His PhD work investigated reconstruction algorithms and applications of x-ray spectral imaging, including photon counting detector modeling and correction, as well as quantitative imaging and computer vision with deep learning on x-ray images and other medical images.

At Stanford, Dr. Wang works on advanced CT detector designs and imaging algorithms.

#### ACADEMIC APPOINTMENTS

- Instructor, Radiology

#### PROFESSIONAL EDUCATION

- PhD, Tsinghua University (2019)
- Bachelor, Tsinghua University (2014)

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### Publications

#### PUBLICATIONS

- **Automated estimation of individualized organ-specific dose and noise from clinical CT scans.** *Physics in medicine and biology*  
Wang, S., Medrano, M. J., Imran, A. A., Lee, W., Cao, J., Stevens, G., Tse, J. R., Wang, A. S.  
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- **Retrospective Tube Current Modulation Optimization of Individualized Organ-Level CT Dose and Image Quality**  
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- **Optimal Weighting Strategies for Maximizing Contrast-to-Noise Ratio in Photon Counting CT Images**  
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- **Empirical optimization of energy bin weights for compressing measurements with realistic photon counting x-ray detectors.** *Medical physics*  
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- **Personalized CT organ noise estimation from scout images** *SPIE Medical Imaging: Physics of Medical Imaging*  
Imran, A., Pal, D., Wang, S., Dutta, S., Zucker, E., Wang, A.  
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- **Fast kV Switching for Improved Material Decomposition with Photon Counting X-ray Detectors**  
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- **Empirical Optimization of Energy Bin Weights for Compressing Measurements with Photon Counting X-ray Detectors**  
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- **Multimodal Contrastive Learning for Prospective Personalized Estimation of CT Organ Dose**  
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- **Personalized CT Organ Dose Estimation from Scout Images** *International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*  
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- **Deep Convolutional Neural Network for Ulcer Recognition in Wireless Capsule Endoscopy: Experimental Feasibility and Optimization** *COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE*  
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