





# Yao Wang, Ph.D.

## Principal

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## Overview

### About Yao

Yao Wang, Ph.D., is an principal in the Washington, D.C., office of Fish & Richardson P.C. Dr. Wang possesses a unique combination of technical expertise in electrical engineering, computer science, biomedical engineering, and physics. His practice emphasizes post-grant proceedings, patent prosecution, client counseling, and portfolio development. He manages the portfolios of several mid-sized companies. He has significant experience in post-grant proceedings, *ex-parte* reexamination proceedings, reissue applications, and appeals, including conducting one oral argument before the PTAB. He has participated in various U.S. district court cases and ITC proceedings, as well.

Prior to Dr. Wang's law career, he was a senior member of the research staff at Philips Research North America and a senior scientist at Pfizer Global R&D. He conducted in-depth research in areas of medical imaging systems, data-intensive image processing, advanced instrumentation, drug discovery and safety, as well as molecular imaging and medicine.

During his doctor's study, Dr. Wang designed and implemented a 64-element forward-viewing ring-annular array for a commercial intravascular ultrasound imaging system. The array is capable of both forward and sideward viewing in synthetic aperture mode for real-time imaging of human coronary artery during vascular interventions. He was the speaker at several IEEE symposia on this topic in Munich, Germany, and Honolulu, Hawaii.

While conducting his doctoral research, Dr. Wang also served as a student system administrator at the University of Michigan. He is very familiar with various operating systems, telecommunication/network technologies, web applications, and programming languages.

During his master's study, Dr. Wang invented a magnetic resonance imaging (MRI) technique to non-invasively map spatial temperature distribution with a sensitivity of 5 m°C. He was the recipient of a

travel stipend to orally present the results for ISMRM in Sydney, Australia.

## Focus Areas

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### Services

- Patent
- Post-Grant
- Patent Prosecution
- ITC Litigation

### Education

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J.D., George Washington University Law School (2012)

Ph.D., Biomedical Engineering, University of Michigan (2002)

M.S., Computer Science and Engineering, University of Michigan (2002)

M.S., Imaging Physics, University of Toronto (1998)

B.S., Electrical Engineering, Nanjing University (1995)

## Experience

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### Patent Applications

Dr. Wang is the lead inventor on four US patent applications::

Y. Wang, "System and apparatus for Power Doppler Imaging with Photo-acoustics," U.S. Patent Application 60/987841, filed Nov. 14, 2007

Y. Wang, "Tracer Kinetic Models for Acoustic Contrast Imaging Applications Using Photo-acoustics or Thermo-acoustics," U.S. Patent Application 60/983991, filed Oct. 31, 2007

Y. Wang, W.T. Shi, "Photoacoustic Imaging Contrast Agent and System for Converting Optical Energy to In-band Acoustic Emission," U.S. Patent Application 60/983994, filed Oct. 31, 2007

# Insights

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## Publications

Dr. Wang has over twenty technical publications and oral presentations, including:

- “Intravascular Ultrasound,” *Encyclopedia of Biomaterials and Biomedical Engineering*, ISBN: 978-0-8247-5562-1 (August 2004)
- “Coded EXcitation with Spectrum Inversion (CEXSI) for Ultrasound Array Imaging,” *IEEE Trans. UFFC*, vol. 50, no.7, 805-823 (July 2003)
- “Optimizing the Beam Pattern for a Forward-viewing Ring-annular Ultrasound Array for Intravascular Imaging,” *IEEE Trans. UFFC*, vol.49, no.12, 1652-1664 (December 2002)
- “Compounding for a Forward-viewing Ring-annular Ultrasound Array System,” *Ultrasonic Imaging*, vol.23, 147-160, (July 2001)
- “An MRI Calorimetry Technique to Measure Tissue Ultrasound Absorption,” *Magnetic Resonance in Medicine*, vol.42,158-166 (July 1999)

## Recognition

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- Named a recipient of the “Pro Bono Achievement Certificate” by the *United States Patent and Trademark Office (USPTO)* (2020)

## Memberships & Affiliations

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Member, American Intellectual Property Law Association (AIPLA)

Member, Institute of Electrical and Electronics Engineers (IEEE)

## Languages

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- English
- Mandarin Chinese