



## Edward Xu

PATENT AGENT

### Boston Office

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HAMILTON  
BROOK SMITH  
REYNOLDS

Intellectual Property Law

### PRACTICE AREAS

- Patents
- Post-Grant Proceedings
- IP Litigation

### TECHNOLOGIES

- Medical Imaging
- Optics and Photonics
- Medical Devices
- Electrical Engineering
- Computer Software
- Artificial Intelligence
- Computer Hardware
- Bioinformatics
- Robotics

### EDUCATION

- B.S. in Biochemistry,  
UCLA
- M.S. in Bioengineering  
and Biomedical  
Engineering,  
Northeastern University
- Ph.D. in Bioengineering  
and Biomedical  
Engineering,  
Northeastern University

Edward assists with patent preparation and prosecution in the areas of biomedical and electrical engineering, biomedical imaging, optics, medical and wearable devices, imaging software, biochemistry, bioinformatics, and information systems.

Edward has specific technology experience in diffuse optical imaging, image reconstruction algorithms, open-source software, multi-physics simulation, image processing and analysis, machine/deep learning, computer vision, database development, real-time and embedded systems, computer-aided design, and health informatics.

Edward's graduate studies in the Computational Optics and Translational Imaging (COTI) Lab of Dr. Qianqian Fang at Northeastern University focused on developing instrumentation and image reconstruction algorithms for diffuse optical imaging. He led multi-disciplinary project teams in the design, development, and clinical validation of diffuse optical imaging systems, including a wearable, fully-flexible and modular functional neuromonitoring device and a first-of-its-kind standalone, wide-field optical breast mammographer that seamlessly integrates with clinical mammography devices to integrate physiological and anatomical imaging for breast cancer diagnosis.

Prior to completing his Ph.D., Edward also worked in the Department of Neurosurgery at Brigham and Women's Hospital as a Research Trainee. He evaluated the prognostic potential of intra-operative cerebral blood flow measurements for the outcome of mechanical thrombectomy procedures for stroke intervention using a prototype diffuse correlation spectroscopy device. Edward co-authored eleven journal articles and is first named author on two of them.

He received the Northeastern University Department of Bioengineering Award for Graduate Research in 2023.