



Boston Children's Hospital

Where the world comes for answers



HARVARD
MEDICAL SCHOOL

Research Fellow in MRI Acquisition and Reconstruction

Boston Children's Hospital / Harvard Medical School

Computational Radiology Laboratory

We are seeking a highly motivated Research Fellow to join our research team in the Computational Radiology Laboratory (CRL) at Boston Children's Hospital (BCH) and Harvard Medical School (HMS) (Principal Investigator: Dr. Xiaoqing Wang). Our group develops cutting-edge MRI acquisition and reconstruction techniques with a strong focus on non-Cartesian imaging for fetal, neonatal, and pediatric studies.

Research Opportunities

- Develop and optimize motion-robust MRI sequences using Siemens IDEA, Pulseseq and/or BART frameworks.
- Develop MRI physics-based and deep learning-enhanced reconstruction pipelines (e.g., BART, PyTorch).
- Deploy new acquisition and reconstruction on state-of-the-art clinical MRI systems at BCH.
- Collaborate closely with on-site scientists from Siemens Healthineers and the multidisciplinary CRL team.

Qualifications

- Ph.D. in electrical/biomedical engineering, medical physics, computer science, or a related field.
- Experience in one or more of the following areas: MRI physics or pulse sequence development; image reconstruction or computational imaging; signal processing or deep learning.
- Strong programming skills (Python, C/C++, and/or MATLAB).

This position offers a unique opportunity to join a vibrant research environment at one of the world's leading pediatric hospitals and medical schools, with strong collaborations across academia and industry. The candidate will have access to a dedicated research 3T Siemens Prisma MRI scanner, state-of-the-art clinical MRI systems and advanced GPU computing resources. Fellows interested in pursuing independent research will receive mentorship in proposal development, grant writing, and fellowship and career development applications.

The position is full-time with competitive salary and benefits, available immediately, and will remain open until filled.

For application, please send a single PDF (a brief cover letter, CV, and contact information for three references) to xiaoqing.wang@childrens.harvard.edu.

Boston Children's Hospital is an equal opportunity employer and values diversity. We encourage applications from candidates of all backgrounds and experiences.