Boston Children's Hospital
Until every child is well™

HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL

Postdoctoral researcher positions at Boston Children's Hospital and Harvard Medical School

Position description: The *Quantitative Intelligent Medical Imaging* (QUIN) lab (PIs: Sila Kurugol, PhD and Onur Afacan, PhD) and Musculoskeletal Imaging Group (Sarah Bixby, MD, MBA and Andy Tsai, MD, PhD) at Harvard Medical School has an opening for highly motivated post-doctoral research fellow/scientist to develop MRI techniques to enhance images and automated image analysis techniques using deep learning tools to compute imaging markers of disease in Musculoskeletal MRI.

The researchers will develop image processing techniques and software tools to analyze images, automatically compute imaging markers of disease and for computer aided diagnosis. The possible projects also include image analysis, image enhancement, image reconstruction, or super resolution. The techniques are aimed to be translated into clinical practice. The successful candidates will work in a highly collaborative diverse, multidisciplinary team. They will have the opportunity to closely work with world-class mentorship team of radiologist-scientists, MR and machine learning scientists and will attend courses and seminars offered at Boston Children's Hospital, Harvard Medical School, and Harvard Catalyst.

About QUIN and MSK imaging group: The mission is improving Musculoskeletal system MR imaging and developing automated image analysis techniques to enhance our capacity to diagnose and treat related diseases. QUIN lab and MSK group are located at Boston Children's Hospital (BCH), which is top ranked in US News ranking of pediatric hospitals. Researchers at these labs are affiliated with Harvard Medical School which is ranked #1 in US News ranking of medical schools. Boston is known as a hub for healthcare and medical innovations, and a beautiful city full of top-rank universities. Opportunities for cross-training and networking are enormous with several top-rank universities (Harvard, MIT, Northeastern, and Boston University), top-rank hospitals and medical research centers, and biotechnology and pharmaceutical companies in the neighborhood.

Required Qualifications:

- Highly motivated individuals who have demonstrated academic excellence with publications in top-class journals and conferences
- Ph.D. in a related field such as Computer Science, Electrical and Computer Engineering, Applied Mathematics, Statistics, Physics.
- Strong background in AI/ML and/or other computational methods such as optimization
- Strong Python, C++, Matlab, or other prototyping and software development skills
- Competence in the comfortable use of popular deep learning libraries and toolkits (e.g. Pytorch)
- Experience with processing and analyzing medical imaging data.
- Strong analytical and problem-solving skills.
- Excellent written and oral communication skills.
- Strong collaboration and teamwork skills.

Preferred Qualifications:

- Strong background in MRI (e.g. image reconstruction, super-resolution, enhancement, quantitative MRI)

To apply: Please send 1. A current CV. 2. Two technical publications. 3. The name and contact information of two references who are familiar with your work to Dr. Sila Kurugol (sila.kurugol@childrens.harvard.edu) and Dr. Onur Afacan (onur.afacan@childrens.harvard.edu). Review of applications will begin immediately and continue until the position is filled.