Postdoctoral Position in
Medical Image Analysis for Neuromodulation Applications

Center for Magnetic Resonance Research (CMRR), University of Minnesota

A postdoctoral appointment is available immediately at the Center for Magnetic Resonance Research (CMRR) University of Minnesota under the supervision of Professor Noam Harel. The Harel lab focuses on the use of high-field, 7 Tesla (T) MRI to advance imaging applications for deep brain stimulation (DBS) procedures. The research project is supported by awarded NIH grant and part of the newly established Udall center. CMRR has outstanding research resource and facility and it accommodates a large number of advanced human MRI scanners (3x3T, 4T, 2x7T and the world first whole body 10.5T) and two animal MRI scanners (9.4T and 16.4T), which are all dedicated for basic and clinical researches.

The successful candidate will participate in a variety of tasks in the lab including pre-operative 7T imaging acquisition, pre- and post-operative 3D modeling of patient-specific anatomy as well as strong interaction with clinical collaborators. He/she will work on developing algorithms and computer programs for effectively processing and analyzing 7T MRI data and fusing these data with computed tomography (CT) data. Other research opportunities are also available depending on the interests and background of the candidate.

Applicant should preferably have a Ph.D. or equivalent experience and trained in one of the following fields: physics, medical physics, computer science, biomedical engineering, electrical engineering or neuroscience.

The successful candidate should have strong background:
- Computer vision, computational analysis of medical imaging.
- Deep understanding of the theory, and applications, of segmentation and registration of cross-modality imaging (e.g. CT to MRI).
- Strong programming skills
- Proven experience in the development of tools for automation of medical imaging post-processing procedures and algorithms.
- Advantage will be given to candidates with clinical imaging experience, preferably in the neuromodulation field.

To apply, please go to the University of Minnesota Employment website at: https://humanresources.umn.edu/jobs Position Number: 322868

To inquire about the position, please contact:
Professor Noam Harel (harel002@umn.edu)

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The University of Minnesota is an equal opportunity educator and employer. All qualified applicants are encouraged to apply including minorities and women.