The MRI Laboratory at the Hospital for Special Surgery invites applications for a highly-motivated Computer Scientist/Engineer (experience range varying from Post-Doctoral to Early Career PhD to Masters degree), to develop musculoskeletal MRI applications, with an emphasis on artificial intelligence. The candidate will develop AI algorithms on musculoskeletal MRI projects using data from the high clinical MRI volume at HSS. The candidate will join a multi-disciplinary team of MR scientists, engineers, and radiologists focused on translating novel techniques to routine clinical practice.

The ideal candidate should have a strong technical background in either computer science, computer/electrical engineering, medical physics, applied mathematics or a related field, and have experience with popular machine learning frameworks such as TensorFlow and PyTorch. Experience working on one or more of the following areas within MRI is highly preferable – pulse sequence programming, image reconstruction or image processing. Familiarity with Unix and shell-script programming is highly desirable. The candidate should also have demonstrated excellent writing and communication skills as well as a record of productivity and publications.

The candidate will be assigned a broad variety of tasks including developing AI algorithms, maintaining processing pipelines, developing MR image reconstruction methods, manuscript preparation, and participation in grant applications. Candidates will also be encouraged to develop their own, independent research ideas that may culminate in a grant application.

HSS is nationally ranked No. 1 in orthopedics for the 11th year in a row, and top-ranked in orthopedics and rheumatology for 29 consecutive years. HSS is a highly interdisciplinary work environment with cooperative efforts involving engineers, surgeons and radiologists performing clinical, translational, and basic science research aimed at improving patient care. The MRI laboratory is actively funded by external funding sources, including NIH/NIAMS, DOD, private foundations, and commercial entities. HSS is equipped with 18 state-of-the-art MRI scanners at both 3.0T and 1.5T.

The position is available immediately and the initial appointment is for one year, with possibility for renewal based on performance. Applicants should submit a cover letter describing current research interests and future research goals, a complete CV, relevant reprints and the names of three references to Darryl Sneag, MD and Ek Tan, PhD.

For inquiries, please email tane@hss.edu.

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