Cleveland Clinic Cardiovascular Innovation Research Center, and the Pediatric and Adult Congenital Heart Center

Opening for Postdoctoral Fellow: Focus on Image Machine Learning

The Cardiovascular Innovation Research Center (CIRC), under Christopher Nguyen, PhD, and the Pediatric and Adult Congenital Heart Center (PACHC), under Animesh (Aashoo) Tandon, MD, MS, are seeking a post-doctoral fellow with interest and expertise in image-based computational modeling and artificial intelligence/machine learning in precision medicine for pediatric, congenital, and adult cardiovascular disease, at Cleveland Clinic.

The post-doctoral fellow will be working on development and implementation of image analysis and AI/ML algorithms for clinical applications in cardiovascular diseases. Specifically, one project will focus on shape, motion, and radiomic analyses of cardiovascular MRI datasets from patients with repaired tetralogy of Fallot. The applicant will also work with the Cleveland Clinic-IBM Discovery Accelerator program, specifically as it relates to artificial intelligence in imaging and multi/cross-modal datasets.

This unique position benefits from the tight link between the CIRC and the Pediatric and Adult Congenital Heart Center. The candidate will interact with both the technical and clinical partners to push patient care in new directions.

Applicants must have or be completing a PhD degree, and have demonstrated excellent qualifications in research. A successful candidate would have a PhD degree in Biomedical Engineering, Computer Science, Electrical Engineering or related field and a demonstrable record of accomplishment in medical image analysis, computer vision, image registration, and feature extraction. Experience in Python, MATLAB and C++ programming is required.

The CIRC in the Heart, Vascular, and Thoracic Institute at Cleveland Clinic is a new research center dedicated to advancing human health through rapid clinical translation of cutting-edge technologies including but not limited to advanced imaging, artificial intelligence, 3D printing, biomimetic device design, and computer simulation. CIRC includes multi-disciplinary faculty scientists, engineers, and clinicians working closely together to solve unmet clinical cardiovascular needs. CIRC houses a state-of-the-art 3T MRI scanner dedicated to cardiac research with flagship ultra-high gradient strengths (200 mT/m) and over 5000 sq ft of space.

The Pediatric and Adult Congenital Heart Center at Cleveland Clinic currently ranks in the top 10 in US News and World Report and has world-class expertise in clinical and research cardiovascular MRI, cardiac anatomy, and congenital heart disease. With 5 CMR imagers and 11 imaging faculty overall, the PACHC provides a robust clinical and research environment for trainees, and provides multiple opportunities for collaboration.

How to apply:

Interested candidates should send a one-page statement of research interests & career goals, a copy of two representative publications, a full CV, and contact info for three references to Dr. Tandon: tandona2@ccf.org. Questions and informal inquiries are welcome!

We believe that the best science comes from embracing diverse people, skills, perspectives, and ideas. We are an Equal Opportunity Employer. Applicants from all backgrounds are strongly encouraged.