

Neuroengineering Postdoctoral Positions Carnegie Mellon University

The He Laboratory at Carnegie Mellon University (<https://www.cmu.edu/bme/helab/>) is seeking highly motivated candidates to fill multiple postdoctoral positions, available immediately but can be filled till summer 2024. The chosen candidates will conduct original research integrating neuroengineering and neuroscience in one of the following projects.

1- EEG-based Brain Computer Interface (BCI). Developing BCI decoding algorithms and BCI strategies that integrate ML with human learning, and evaluation in human subjects. Focus is on motor imagery paradigms. Qualifications: PhD in BME, ECE, Neuroscience or a related field. Prior experience in doctoral thesis research working on EEG BCI. Experience with motor imagery BCI using EEG desirable.

2- EEG/MEG Source Imaging and Localization. Developing source imaging algorithms to localize and image locations, extents, and temporal dynamics of brain activation and image functional connectivity and networks from scalp recorded EEG/MEG. The project mainly involves algorithm development and data analysis. Qualifications: PhD in BME, ECE, or a related field. Prior experience in doctoral thesis research working on EEG or MEG source imaging or connectivity imaging. Experience with epilepsy source localization or connectivity mapping desirable.

3- Transcranial Focused Ultrasound (tFUS) Neuromodulation. Developing multi-element tFUS array system for brain stimulation, and investigating optimized ultrasound parameters for effective modulating neural circuits in in vivo rodents, and human subjects. Qualifications: PhD in BME, ECE, Physics, Neuroscience, or a related field. Prior experience in doctoral thesis research working on focused ultrasound neuromodulation in animal models or human subjects highly desirable. Candidates with prior doctoral thesis research in TMS will also be considered.

The individuals will join a highly collaborative group working on neural interfacing, imaging and modulation with mixed expertise in engineering, computation, animal models and human investigation. The candidates will publish peer-reviewed journal articles and help mentor graduate students carrying out experiments.

For consideration, e-mail a CV and the names and contact information of three professional references as a single PDF file attachment to:

Bin He, Ph.D.
Trustee Professor of Biomedical Engineering
Professor of Neuroscience Institute
Professor of Electrical and Computer Engineering (Courtesy)
Carnegie Mellon University, Pittsburgh, PA, USA
bhe1@andrew.cmu.edu

Carnegie Mellon University (CMU): CMU is a premier institution in science and engineering education and research. CMU's College of Engineering is ranked as the 5th best engineering school in USA according to US News and World Report. Pittsburgh is a vibrant, mid-sized city that has the feel of a small town. Its approachability can be seen on the faces of its energetic, hard-working and proud people. A city built on innovation, Pittsburgh continues to push the envelope with major contributions in technology, education, medicine and beyond. In 2021, WalletHub named Greater Pittsburgh its sixth-best metro area for STEM professionals.

Carnegie Mellon University is an Equal Opportunity Employer.