PHOTOACOUSTIC & ULTRASONIC SYSTEMS ENGINEERING LAB

Overview: The Photoacoustic & Ultrasonic Systems Engineering (PULSE) Lab at Johns Hopkins University, directed by Dr. Muyinatu Bell, is recruiting postdoctoral fellows to join our lab and work on multiple cutting-edge projects that apply state-of-the-art ultrasound and photoacoustic imaging techniques. The PULSE Lab is known for its pioneering research in the broad area of medical imaging technology, specifically ultrasound and photoacoustic imaging, photoacoustic-guided surgery, robot-assisted imaging, machine learning for image formation, and other cutting-edge techniques created to significantly advance healthcare interventions and diagnosis. Visit https://pulselab.jhu.edu/ for more details.

Project Description: We are seeking multiple postdocs to assist with multiple projects. The successful postdoctoral candidates will assist with transducer designs, optical system designs, clinical translation, soft robotics, beamforming, microscopic analyses, and deep learning applied to ultrasound and photoacoustic images. These projects will be completed in collaboration with physicians at the Johns Hopkins Hospital, enabling access to a strong cohort of patients who are prime candidates to participate in our final-stage testing of the new technology. Opportunities to engage in additional projects of mutual interest and relevance to the broader research mission of the PULSE Lab will also be available.

Required Background, Skills, & Qualifications: PhD degree in biomedical engineering, electrical engineering, mechanical engineering, computer science, physics, or a related field; programming experience (e.g., MATLAB, Python, ROS); simulation experience (e.g., Monte Carlo, COMSOL); experience with hands-on experimental procedures; familiarity with ultrasound or photoacoustic imaging; experience with pre-clinical studies and/or patient-focused research; verbal and written communication skills; desire and motivation to make an impact.

Funding: Funding for these positions is available immediately for a term of one year, with an option to renew depending on progress and performance.

To Apply: Email your CV, research interests, and links to three representative papers to mledijubell@jhu.edu & cc: pulselab@jhu.edu. Place the text "PULSE Lab Postdoc Candidate" in the subject line of your email.