



**Overview:** The Photoacoustic & Ultrasonic Systems Engineering (PULSE) Lab at Johns Hopkins University, directed by Dr. Muyinatu Bell, is seeking a postdoctoral fellow to join our lab and work on cutting-edge projects that apply state-of-the-art deep learning techniques to ultrasound and photoacoustic image formation.

**Project Description:** This project builds on our expertise with exploring novel approaches that replace the mathematical component of ultrasound and photoacoustic image formation with well-trained networks that produce clearer, easier-to-interpret images. The successful candidate will be expected to implement simulations of acoustic wave propagation to create sufficient training data sets, train and test multiple network architectures, design and evaluate experiments, prepare and publish significant research findings, and train and supervise research staff. More details are available within the following section of the PULSE Lab website:

<https://pulselab.jhu.edu/research/#AdvancedBeamformingMethods>

**Preferred Background & Skills:** Programming experience in MATLAB and C/C++; experience with Keras and/or TensorFlow; experience with computer vision and basic deep learning techniques; familiarity with ultrasound imaging would be helpful, but is not required. The desire and motivation to make an impact in this young and growing field is absolutely necessary.

**Funding:** The position is available immediately for a term of one year, with an option to renew depending on progress and performance. This position will be funded by a NIH Trailblazer grant awarded to Prof. Muyinatu Bell.

**To Apply:** Email your CV, research interests, and links to two representative papers to [mledijubell@jhu.edu](mailto:mledijubell@jhu.edu) & cc: [pulselab@jhu.edu](mailto:pulselab@jhu.edu). Please place "PULSE Lab Postdoc Candidate" in the subject line of your email.