Research assistant positions are available in the Laboratory of Integrated Brain Imaging (LIBI), led by Professor Zhongming Liu. The positions are in the following areas.

1. **Medical devices**

The goal is to develop systems or devices that perform neural recording or modulation in live animals during concurrent magnetic resonance imaging. Of particular interest is the design and fabrication of low-power analog or mixed signal processing. Suitable candidates are students who have skills and experiences in device design, fabrication, packaging, and testing.

2. **Neuroscience-driven artificial intelligence**

The goal is to learn how our brains represent vision and language and use the brain’s principles to design artificial intelligence systems for computer vision and natural language processing. The central focus is on brain-inspired deep learning, especially deep neural networks that learn from naturalistic environments to perform complex tasks. Suitable candidates are students who have interest and skills in machine learning, statistical signal processing, and neuroengineering.

3. **Small-animal magnetic resonance imaging**

The goal is to develop and use animal MRI and electrophysiology methods to map circuits in the brain. The Lab is equipped with, or has access to, a large set of research tools, including small-animal 7-Tesla MRI, 64-channel MR-compatible EEG systems, broadband amplifiers for high-density single-unit recordings, commercial or customized systems for neuromodulations. Suitable candidates are students who have strong interests in applying engineering principles and skills to biomedical research.

Please contact Professor Liu for any question regarding the above opportunities.

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