Two full-time postdoctoral positions in neural image analysis and computational neuroscience are available immediately at Carnegie Mellon University (CMU). Recent advances in microscopy techniques and fluorescence sensors have revolutionized how neurobiologists study the activity in neural circuits during behavior and learning. These methods can gather image data for the many different types of neuronal cells that compose neural circuits, but the data are complex, and standardized analysis techniques remain to be developed. The research projects for the postdoctoral positions will focus on developing and applying signal/image processing, computer vision, and related computational techniques for analyzing calcium imaging data and for understanding related neural circuit activities.

Successful candidates will be jointly advised by Ge Yang (Department of Biomedical Engineering & Department of Computational Biology) and Sandra Kuhlman (Department of Biological Sciences & Center for the Neural Basis of Cognition) and will interact with world-class research programs at CMU in signal/image processing, computer vision, bioimage informatics, neuroscience, computational biology, machine learning, and related areas.

Requirements: The projects are highly quantitative and interdisciplinary. Applicants should have a Ph.D. in one of the following areas: Biomedical Engineering, Electrical Engineering, Computational Neuroscience, Computational Biology, Computer Science, Applied Mathematics, Physics, or a related area. Qualifications include a strong research background in one of the following fields: signal/image processing, computer vision, bioimage informatics, computational neuroscience, computational biology, statistical neuroscience, machine learning, or a related field. Background in neuroscience will be very valuable but not essential.

The initial appointment will be for one year, and is renewable. Salaries will be set based on experience and skills. Applications should be sent by email to geyang@andrew.cmu.edu and skuhlman@andrew.cmu.edu with the following documents:

- A one-page summary of past research experience
- A one-page summary of future research interests and aims
- An up-to-date CV of research and education experience, including publications
- Names of three referees for letters of recommendation

All materials should be in PDF or plain text. Applications will be reviewed upon receipt until the positions are filled. Interested candidates are encouraged to apply early.