Optical / Systems Engineer

Vaziri Laboratory of Neurotechnology and Biophysics
The Rockefeller University, New York, NY
https://vaziri.rockefeller.edu/

To consolidate, optimize, and advance various optical neurotechnologies based on multiphoton and computational microscopy that we have developed over the years, to support the development of alpha and beta prototype microscopes in collaboration with industrial partners, and to drive the broader dissemination of our technologies through interdisciplinary collaborations, we are currently looking for highly motivated and ambitious candidates to fill staff positions as an Optical / Systems Engineer.

Depending on candidates' qualifications the main **areas of responsibilities** will include:
- Development and optimization of new high-speed optical methods for large scale recording of neuronal population activity
- Development of strategies and imaging tools for in vivo imaging in scattering media
- Optimization and dissemination of computational imaging techniques

Qualifications

Depending on the specific project, the ideal candidate should have the following profile:
- Self-driven, ambitious, and motivated by enabling engineering innovations with lasting practical impact
- Track-record as the lead designer and/or experimental constructor of complex (electro) optical and optomechanical systems or instruments
- Ph.D. degree, master's degree, or bachelor's degree in physics, optical engineering, electrical engineering, or related area and 2-5 years of relevant work experience in a scientific or industrial research environment
- Experience with one and more of these areas would be highly desired: optical modeling and simulations (e.g. ZEMAX), ultra-fast laser systems, fiber optics, mechanical design, mechanical fabrication skills, RF electronics and electronics design, optomechanical hardware control (LabView, FPGA, experience with large-scale data processing and cluster computing)
- Basic programming skills (e.g. Matlab, Python, LabView, CAD)
- Highly result oriented, excellent time management and communication skills, the ability to effectively work in a team environment between academia and industry, and willingness to work outside of core expertise

Interested candidates should send their application material, including CV/resume and list of publications, as well as the contact information of at least two references to vaziriadmin@rockefeller.edu. For more information, please visit our website at https://vaziri.rockefeller.edu/