

Computational Neuroscience Research Assistant Position

Position Summary:

The Neural Dynamics and Neural Engineering Lab at Virginia Tech, headed by Sujith Vijayan, is looking for a research assistant to help set up and manage research projects in the lab. Our lab investigates neural dynamics during active behavior and during off-line states, such as sleep, using a combination of computational modeling, signal processing techniques, and both invasive and non-invasive techniques for recording neural activity. The basic science knowledge gathered from these investigations is leveraged to understand how memories are instantiated in the brain, to gain insight into how learning occurs during brain machine interface (BMI) tasks, to improve BMI algorithms, and to develop the framework for stimulation and pharmacological therapies for diseases, especially those marked by abnormal neural dynamics during sleep (e.g., post-traumatic sleep disorder (PTSD) and Parkinson's disease).

Duties of the research assistant may include working on model construction, data collection, data organization, and data analysis and coordinating projects with other members of the laboratory. The candidate will have the opportunity to co-author publications and, depending on their background and experience, craft their own research projects. Training and guidance will be provided for those aspects of the job in which the candidate is lacking sufficient expertise. This position would be well suited for someone who is considering graduate school in neuroscience, biomedical engineering, electrical engineering, computer science, applied mathematics, or medical school.

Required Qualifications:

BS in applied mathematics, computer science, engineering, physics, computational neuroscience, psychology, or a related field.

Preferred:

Programming experience (e.g., with Python or Matlab) is desirable. Experience running behavioral experiments or collecting EEG data would be an asset.