

## One Postdoctoral Research Associate and Two Ph.D. positions at Georgia State University Imaging Hub

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A Postdoctoral Research Associate and two funded Ph.D. positions are available with **Dr. Armin Iraj** at Georgia State University. We are part of [Georgia State University's \(GSU\)](#) new cross-discipline Imaging Hub, the GSU [Computer Science](#) department, and the Tri-Institutional (Georgia State University /Georgia Institute of Technology/Emory University) Center for Translational Research in Neuroimaging and Data Science ([TReNDS](#)). Our team collaborates with a group of researchers from various fields and backgrounds, including neuroimaging, electrical engineering, computer science, physics, genetics, math, and statistics. We develop advanced analytic approaches to detect spatiotemporal dynamic imaging patterns and link them across multiple spatial and temporal scales. The main focus of our work is applying these techniques to better understand the brain and translate brain imaging data into biomarkers for brain health and disease.

### **About the Role**

The candidates will develop unimodal and multimodal analytical techniques focusing on blind source separation/subspace approaches (e.g., ICA, CCA) and multi-layer neural networks to detect brain spatiotemporally dynamic patterns across multiple spatial and temporal scales. The successful candidates will have an opportunity to apply their methods to large-scale data sets ( > 100k individuals) to identify biomarker candidates for various mental and neurological disorders.

We are a supportive, collaborative team, which gives successful candidates the opportunity to work closely with other faculty members of the Computer Science department, Imaging Hub, and TReNDS Center. We strongly encourage applications from underrepresented and historically marginalized.

### **Qualifications**

The candidates should be self-motivated and passionate about science and research. Good oral and written English skills are essential. The position requires strong backgrounds in statistical, signal processing/machine learning knowledge, and fMRI data analyses. The successful candidates should be willing to devote time and effort to acquire the necessary skills and knowledge with the mentors' support. In addition, a background in the theory and practice of latent variable analysis methods, such as blind source separation, and deep learning techniques are highly desirable but not required. The successful candidate should have programming experience with MATLAB and/or Python.

### **How to Apply**

Please send a complete CV, a cover letter explaining how your work is relevant to our research, and contact information of at least three references to [airaji@gsu.edu](mailto:airaji@gsu.edu).