Biggs Institute Neuroimaging Core (BINC), Glenn Biggs Institute for Alzheimer's, 7703 Floyd Curl Drive, San Antonio, Texas 78229

The Neuroimage Analytics Laboratory (NAL) and the Biggs Institute Neuroimaging Core (BINC) are recruiting a postdoctoral fellow in deep learning and neuroimaging

-University of Texas Health San Antonio-

Are you excited about deep learning and transfer learning? Do you want to apply and develop deep learning methods to high-dimensional neuroimaging data and make new discoveries that could advance our understanding of Alzheimer's disease? We are looking for a postdoctoral fellow who is willing to research more deep and transfer learning methods in large cohort-based studies.
Alzheimer's disease and other dementias are heterogeneous conditions, which makes differentiating between them and their subtypes very challenging. Our goal is to use neuroimaging data and deep learning to help uncover and detect specific pathologies and patterns emerging in early Alzheimer's disease. In this position, your challenge will be to develop new deep learning architectures and algorithms that allow current pathology detection and prediction of possible future disease trajectories.
Your work environment will be the Neuroimage Analytics Laboratory (NAL) and the Biggs Institute Neuroimaging Core (BINC). We build advanced neuroimage analytical techniques to derive discovery. Data-driven approaches are of special interest in our lab, as machine learning and machine intelligence will guide the scientist towards the finding. On a broader goal, our tools help deliver precise diagnostics on an individual's level and ultimately could guide treatment progress.

We are part of the Biggs Institute (https://biggsinstitute.org), which is being established as a flagship, free-standing institute within the University of Texas Health San Antonio (UTHSA), with the mission of establishing an interdisciplinary, integrated program to provide comprehensive clinical care and undertake innovative and important research into the prevention and treatment of Alzheimer's Disease and other neurodegenerative conditions, including vascular contributions to dementia, Parkinson's disease, and frontotemporal dementia. It has strong institutional and community support and will benefit from existing resources within UTHSA such as the Barshop Institute for Longevity and Aging Studies, the Center for Biomedical Neuroscience, the School of Nursing, the Cancer Center, and the Research Imaging Institute, along with the San Antonio campus of the UT Health Houston School of Public Health.

Responsibilities

- Develop, test, and validate novel architectures and algorithms for deep (transfer) learning with neuroimaging data

- Apply your validated methods to large scale research and real-life everyday clinical routine neuroimaging data
- Willingness to work in teams, within NAL, BINC, and Biggs and with national and international collaborators
- Communicate your research results to the larger communities through publications in international conferences and journals
- Work with a great deal of independence in achieving research goals

Requirements

- A Ph.D. degree in Artificial Intelligence, Machine Learning, Computer Vision, or Medical Image Analytics with solid experience in deep learning; Experience in Neuroimaging and Dementia Research is a plus.
- Great eagerness to solve scientific problems
- Strong programming skills, e.g., in Python, R, C++, and Java. Experience with Python deep learning toolboxes and high-performance computational facilities could be a plus;
- Excellent record of publishing in relevant, high-quality journals in the above fields
- Excellent communication abilities in English; spoken and written.

If interested, please send a copy of your CV to Dr. Habes (habes@uthscsa.edu)

Mod Habes, Ph.D.
Assistant Professor, Departments of Radiology and Epidemiology
Director, Neuroimage Analytics Laboratory (NAL)
https://www.nallab.org
Director, Biggs Institute Neuroimaging Core (BINC)
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases
https://biggsinstitute.org
Director, Biomedical Image Analytics Division (BIAD)
Research Imaging Institute
University of Texas Health Science Center San Antonio (UTHSCSA)
7703 Floyd Curl Drive, San Antonio, Texas 78229
(Phone) +1 210-450-8416
(Email) habes@uthscsa.edu

Adjunct Assistant Professor, Department of Radiology
University of Pennsylvania
3700 Hamilton Walk, Philadelphia, Pennsylvania 19104
(Email) habesm@upenn.edu