Stanford



Hamed Honari

Postdoctoral Scholar, Psychiatry

Bio

BIO

Hamed received his PhD in Electrical & Computer Engineering from Johns Hopkins University. With his background in Artificial Intelligence, Machine Learning, Statistical Signal/Image Processing and passion in software prototyping and proof of concept, he is interested in methodology development and application of AI in neuroimaging, computational neuroscience, and interdisciplinary research and development.

Before joining Stanford, he worked a Data Scientist at World Bank Group in Washington, DC where he used his background and research skills leveraging AI for innovative solutions and showcase effectiveness of technology-driven solutions in real-world contexts through design thinking research and PoV prototyping, including Computer Vision, Generative AI (LLMs), and NLP.

During his PhD, he worked on introducing new approaches for assessing time-varying functional brain connectivity. Currently, as a Postdoctoral Research Fellow, his interests are focused on use of data driven techniques and machine learning for neuroimaging in particular for assessing functional connectivity.

Hamed has shown a track record of applying research and problem solving across various domains and its corresponding domain data such as Healthcare, Financial and Public Sector, Energy and Interdisciplinary Engineering domains.

INSTITUTE AFFILIATIONS

- Member, Maternal & Child Health Research Institute (MCHRI)

HONORS AND AWARDS

- Recipient of National Institute of Mental Health T32 Postdoctoral Fellowship, Stanford University
- Awarded Institute for California Artificial Intelligence Policy (I-CAP) Fellowship, Silicon Valley Leadership Group
- Awarded Emerging Clean Energy Leadership Fellowship, NC Sustainable Energy Association
- Commitment to Service for Dedication and Work Award, NC Sustainable Energy Association

PROFESSIONAL EDUCATION

- PhD, Johns Hopkins University , Electrical & Computer Engineering (2022)
- MS, Johns Hopkins University , Electrical & Computer Engineering (2017)
- MS, NC State University , Mechanical Engineering (2013)
- BS, University of Tehran , Mechanical Engineering (2009)

STANFORD ADVISORS

- David Hong, Postdoctoral Faculty Sponsor

LINKS

- "Google Scholar": https://scholar.google.com/citations?user=eC-qGrgAAAAJ&hl=en&oi=ao
- "orcid": https://orcid.org/0000-0001-7932-9543
- Loop: https://loop.frontiersin.org/people/617737/over

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Machine Learning, Neuroimaging, Computer Vision,Deep Learning, Signal Processing

Publications

PUBLICATIONS

- **Editorial: Machine learning algorithms for brain imaging: new frontiers in neurodiagnostics and treatment** *Frontiers in Neuroinformatics*
  Tandle, A., Appukuttan, S., Honari, H.
  2026; 20: 01-03
- **RASopathies influences on neuroanatomical variation in children.** *Biological psychiatry. Cognitive neuroscience and neuroimaging*
  McGhee, C. A., Honari, H., Siqueiros-Sanchez, M., Serur, Y., van Staalduinen, E. K., Stevenson, D., Bruno, J. L., Raman, M. M., Green, T.
  2024
- **Mode decomposition-based time-varying phase synchronization for fMRI** *NEUROIMAGE*
  Honari, H., Lindquist, M. A.
  2022; 261: 119519
- **Dynamic Functional Brain Connectivity Underlying Temporal Summation of Pain in Fibromyalgia** *ARTHRITIS & RHEUMATOLOGY*
  Cheng, J. C., Anzolin, A., Berry, M., Honari, H., Paschali, M., Lazaridou, A., Lee, J., Ellingsen, D., Loggia, M. L., Grahl, A., Lindquist, M. A., Edwards, R. R., Napadow, et al
  2022; 74 (4): 700-710
- **Phase-locking of resting-state brain networks with the gastric basal electrical rhythm** *PLOS ONE*
  Choe, A. S., Tang, B., Smith, K. R., Honari, H., Lindquist, M. A., Caffo, B. S., Pekar, J. J.
  2021; 16 (1): e0244756
- **Evaluating phase synchronization methods in fMRI: A comparison study and new approaches** *NEUROIMAGE*
  Honari, H., Choe, A. S., Lindquist, M. A.
  2021; 228: 117704
- **Investigating the impact of autocorrelation on time-varying connectivity** *NEUROIMAGE*
  Honari, H., Choe, A. S., Pekar, J. J., Lindquist, M. A.
  2019; 197: 37-48
- **Reduced Large Eddy flame simulation, dimensional surrogate approach** *ASTFE Digital Library*
  Mirgolbabaei, H., Muller, R., Honari, H.
  2025
- **Application priority of GSHP systems in the climate conditions of the United States (vol 13, pg 1, 2017)** *ADVANCES IN BUILDING ENERGY RESEARCH*
  Soolyeon, C., Saurabh, R., Piljae, Hamed, H., Jonghoon, A.
  2019; 13 (1): III
- **Methodology for energy strategy to prescreen the feasibility of Ground Source Heat Pump systems in residential and commercial buildings in the United States** *ENERGY STRATEGY REVIEWS*

Cho, S., Ray, S., Im, P., Honari, H., Ahn, J.
2017; 18: 53-62

- **Economic Analysis of Ground Source Heat Pumps in North Carolina**
  Honari, H., Makhyoun, M., Sridhar, V., Hoover, K., ASHRAE
  AMER SOC HEATING, REFRIGERATING AND AIR-CONDITIONING ENGS.2014
- **PREDICTION OF FORCED CONVECTION FLOW IN A PARALLEL PLATE CHANNEL FILLED WITH POROUS MEDIA**
  Ehyaei, D., Honari, H., Rahimian, M., ASME
  AMER SOC MECHANICAL ENGINEERS.2009: 631-635

PRESENTATIONS

- AI for World Bank Group (WBG) Library Intelligent Search: An Exploration of Three Technologies
- Measuring time-varying connectivity using tapered windowed phase synchronization
- Investigating the impact of autocorrelation on time-varying connectivity - The Statistical Methods in Imaging (SMI) Conference
- Effect of Aging on Motor Cortex Functional Connectivity Across Healthy and Refractory Epilepsy Populations