Mustafa Saifuddin Salman

PhD student, Electrical & Computer Engineering
University of New Mexico
Research assistant, Mind Research Network
Albuquerque, NM, USA

Phone: (505) 313-2533
Email: esalman@unm.edu, msalman@mrn.org
cpu.salman@gmail.com
Website: www.esalman.com

Education

Ph.D., Electrical & Computer Engineering, University of New Mexico, Fall 2015-present
CGPA: 3.82, Major: Bioengineering in EE

M.B.A., Institute of Business Administration, Dhaka University, Bangladesh, 2013
CGPA: 2.93, Major: Finance, Minor: Marketing
Dissertation: Financial Feasibility of a Stock Simulation Program

B.S., Electrical & Electronic Engineering, Bangladesh University of Engineering & Technology, 2009
CGPA: 3.40, Major: Communications, Minor: Electronics
Dissertation: A Study On IPTV: An Emphasis On Quality Control
Noteworthy project: Retina Based Mouse Control

Employment

Graduate Research Assistant, Mind Research Network, Albuquerque, NM, 2015–present
Conducting research on brain function using neuroimaging methods (functional MRI) and exploring its relation to mental illness.

Co-founder & CTO, Dimik Infotech, Dhaka, Bangladesh, 2011–2015
Developed software for Dhaka Stock Exchange (DSE) brokers as well as web and mobile applications for offshore small business clients.

Web Application Developer, Technobd Web Solutions, Dhaka, Bangladesh, 2009–2011
Developed web applications according to company/client requirements.

Research

Research Interests: Neuroscience, brain imaging, functional MRI, functional connectivity, biomarkers of mental illness; data science, machine learning & artificial intelligence.

Journal Articles

1. Salman, M., Vergara, V. M., Damaraju, E., and Calhoun, V.D., 2018. Decreased Cross-domain Mutual Information in Schizophrenia from Dynamic Connectivity States. Human Brain Mapping (under review).

2. Salman, M., Du, Y., Lin, D., Fu, Z., Damaraju, E., Sui, J., Chen, J., Yu, Q., Mayer, A.R., Posse, S., Mathalon, D.H., Ford, J.M., Erp, T.V., Calhoun, V.D., 2018. Group ICA for Identifying Biomarkers in Schizophrenia: 'Adaptive' Networks via Spatially Constrained ICA Show More Sensitivity to Group Differences than Spatio-temporal Regression. bioRxiv 429837. (under review, preprint: 10.1101/429837)

3. Du, Y., Pearlson, G.D., Lin, D., Sui, J., Chen, J., **Salman, M.**, Tamminga, C.A., Ivleva, E.I., Sweeney, J.A., Keshavan, M.S., Clementz, B.A., Bustillo, J., Calhoun, V.D., 2017. Identifying dynamic functional connectivity biomarkers using GIG-ICA: Application to schizophrenia, schizoaffective disorder, and psychotic bipolar disorder. Human Brain Mapping 38, 2683-2708. doi:10.1002/hbm.23553

4. Qi, S., **Salman, M.**, Calhoun, V.D., 2018. Parallel Group ICA + ICA: Joint Estimation of Linked Functional Network Variability and Structural Covariation with Application to Schizophrenia. IEEE Transactions on Medical Imaging. (under review)

Conference Proceedings

1. Salman, M., Vergara, V.M., Damaraju, E., Calhoun, V.D., 2018. Weak Mutual Information Between Functional Domains in Schizophrenia. in: 52nd Asilomar Conference on Signals, Systems, and Computers.

2. Du, Y., Fu, Z., Lin, D., **Salman, M.**, Rahaman, M.A., Abrol, A., Calhoun, V.D., 2018. Shared and specific functional and structural changes in schizophrenia and autism spectrum disorder. in: Sixth Biennial Conference on Resting State and Brain Connectivity.

3. Du, Y., Pearlson, G.D., Lin, D., Sui, J., Chen, J., **Salman, M.**, Tamminga, C.A., Ivleva, E.I., Sweeney, J.A., Keshavan, M.S., Clementz, B.A., Bustillo, J., Calhoun, V.D., 2017. Identifying Dynamic Functional Connectivity Biomarkers Using GIG-ICA: Application to Psychosis. in: 23rd Annual Meeting of the Organization for Human Brain Mapping (OHBM).

4. Salman, M., Du, Y., Calhoun, V.D., 2017. Identifying FMRI dynamic connectivity states using affinity propagation clustering method: Application to schizophrenia. Presented at the 2017 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 904-908. doi:10.1109/ICASSP.2017.7952287

    4a. Salman, M., Du, Y., Calhoun, V.D., 2018. Identifying Dynamic Connectivity States Using Affinity Propagation Clustering. in: 23rd Annual Meeting of the Organization for Human Brain Mapping (OHBM). doi:10.7490/f1000research.1116322.1

5. Salman, M., Du, Y., Damaraju, E., Lin, Q., Calhoun, V.D., 2017. Group information guided ICA shows more sensitivity to group differences than dual-regression. Presented at the 2017 IEEE 14th International Symposium on Biomedical Imaging (ISBI 2017), pp. 362-365. doi:10.1109/ISBI.2017.7950538

    5a. Salman, M., Du, Y., Damaraju, E., Calhoun, V.D., 2017. Group information guided ICA shows more sensitivity to group differences than dual-regression. in: 23rd Annual Meeting of the Organization for Human Brain Mapping (OHBM). doi:10.7490/f1000research.1116321.1

Reviewing Services

Frontiers in Neuroscience

Workshops

Provided assistance to the participants of the biennial "The Mind Research Network (MRN) fMRI Image Acquisition and Analyses Course with SPM and ICA" since Summer 2016.

Honors & Awards

Second annual student paper competition, ECE-GSA, UNM- 3rd place (conference category), 2017

IEEE International Symposium on Biomedical Imaging, Conference travel grant, $1000, 2017

Doctoral Conference Presentation Award, UNM, $1000 each, 2017 & 2018

Societies

Student member, IEEE & IEEE Signal Processing Society, since 2016

Member, Organization for Human Brain Mapping (OHBM), since 2017

Miscellaneous

Computer Skills

Programming: scripting & object-oriented language (C, PHP, Python, Actionscript, Java, JavaScript), scientific computing (R, MATLAB), markup language (HTML/CSS, LaTeX), version control (SVN, Git) etc.

Data science, machine learning & artificial intelligence (SciPy, TensorFlow etc.)

Web, Android & database application development

Operating systems (Windows, Linux & OS X)

Networking & cloud (AWS, S3, high performance computing)

Entrepreneurship, co-founded a stock-market software start-up, Dimik Infotech Ltd. in Dhaka, Bangladesh, 2011-2015

Developer advisor at stackoverflow.com, voluntarily answering software development questions

UNM App Contest, LoboTutor app, 4th place, 2016-17

Last updated: November 29, 2018

`http://www.esalman.com`