Xiang "Shaun" Li

Current Position: Postdoc Research Fellow at the Clinical Data Science Center, Harvard Medical School and Massachusetts General Hospital.
Current Address: Xiang Li, 25 New Chardon St. 449A, Boston, MA, 02114.
Tel/Fax: (706)-248-0264
Email: xiangli.shaun@gmail.com
Homepage: *https://xiangli-shaun.github.io/*

EDUCATION, ACADEMIC POSITIONS:

September 2016-Present:

Postdoc research fellow at the Clinical Data Science Center, Harvard Medical School and Massachusetts General Hospital. Advisor: James H. Thrall, MD, and Associate Professor Quanzheng Li.

Research on developing machine learning methods such as advanced deep learning schemes for medical image analysis. Developing image analysis solutions for assisting clinical practices and computer-aided detection.

August 2009-2016:

MS/PhD student and research assistant of the Department of Computer Science, University of Georgia, Athens, GA. Advisor: Professor Tianming Liu.

Research on big data analytics and solution design on neuroimaging data, multimodal brain connectivity analysis, functional and structural characterization of mental disorders.

June 2015-August 2015:

Visiting student of the Department of Computational Medicine and Bioinformatics, University of Michigan, Ann Arbor, MI. Advisor: Associate Professor Jieping Ye.

Algorithm design and implementation for fast and scalable machine learning methods for knowledge discovery on big neuroimaging data.

September 2014-December 2014:

Visiting scientist of the Allen Institute for Brain Science, Seattle, WA. Advisor: Associate Investigator Hanchuan Peng.

Development of the interactive segmentation toolkit based on Vaa3D for high-resolution biomedical imaging analysis.

August 2009-May 2010:

Research assistant of the Department of Psychology, University of Georgia. Advisor: Associate Professor Dean Sabatinelli.

Software implementation and hardware setting for fMRI-EEG data analysis and experiment control, helped in performing brain MRI scans.

August 2006-July 2009:

Lab assistant of the Environmental Protection Key Laboratory, Nankai University,

Tianjin, China.

June 2002-June 2006:

BEng., Automation, School of Electronic and Electric Engineering, Shanghai Jiaotong University, Shanghai, China.

LIST OF AWARDS:

UGA Computer Science Department Outstanding Graduate Dissertation/Thesis, 2016.

Franklin Foundation Travel Award, 2015.

Nomination of Best Student Paper Award in ISBI 2013.

Nomination of Best Student Paper Award in ISBI 2011.

ACADEMIC EXPERIENCE:

Poster Presentation at ISBI 2015, 2018.

Oral Presentation at ISBI 2011, 2013, 2014.

Invited workshop talk at BIH 2016 (Omaha, U.S.).

Poster Presentation at KDD 2016 (San Francisco, U.S.).

Poster Presentation at OHBM 2013 (Seattle, U.S.).

Poster Presentation at MICCAI 2011 (Toronto, Canada).

Reviewer for conferences including ISBI, MICCAI and ICME.

Program committee member for the MICCAI workshop of Patch-based Techniques in Medical Imaging (PMI).

Reviewer for *Neuroimaging*, *BMC Bioinformatics*, *Pattern Recognition*, *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, *IEEE Transactions on Biomedical Engineering*, and *Neurocomputing*.

SELECTED JOURNAL PUBLICATIONS:

A Distributed Computing Platform for fMRI Big Data Analytics. ***IEEE Transactions on Big Data***, 2018.

Artificial Intelligence and Machine Learning in Radiology: Opportunities, Challenges, Pitfalls, and Criteria for Success. ***Journal of the American College of Radiology***, 2018.

Spatio-temporal modeling of connectome-scale brain network interactions via time-evolving graphs. ***Neuroimage***, 2017.

Characterizing and Differentiating Task-based and Resting State FMRI Signals via Two-stage Sparse Representations. ***Brain Imaging and Behavior***, 2015.

Holistic Atlases of Functional Networks and Interactions Reveal Reciprocal Organizational Architecture of Cortical Function. ***IEEE Transactions on Biomedical Engineering***, 2014.

Sparse Representation of Whole-brain FMRI Signals for Identification of Functional Networks. ***Medical Image Analysis***, 2014.

Identifying and Characterizing Resting State Networks in Temporally Dynamic Functional Connectomes. ***Brain Topography***, 2014.

Inferring Functional Interaction and Transition Patterns via Dynamic Bayesian Variable Partition Models. ***Human Brain Mapping***, 2014.

Dynamic Functional Connectomics Signatures for Characterization and Differentiation of PTSD Patients. ***Human Brain Mapping***, 2013.

Detecting Brain State Changes via Fiber-Centered Functional Connectivity Analysis. ***Neuroinformatics***, 2013.

SELECTED CONFERENCE PRESENTATIONS:

Medical Image Segmentation Based on Multi-Modal Convolutional Neural Network: Study on Image Fusion Schemes. ***ISBI*** 2018.

Deep Learning Algorithm for rapid automatic detection of pneumothorax on chest CT. ***ARRS*** 2018.

Self-paced Convolutional Neural Network for Computer Aided Detection in Medical Imaging Analysis. ***MLMI*** 2017.

Dictionary Learning and Sparse Coding-based Denoising for High-Resolution Task Functional Connectivity MRI Analysis. ***MLMI*** 2017.

Template-guided Functional Network Identification via Supervised Dictionary Learning. ***ISBI*** 2017.

Scalable Fast Rank-1 Dictionary Learning for fMRI Big Data Analysis. ***ACM SigKDD*** 2016.

Modeling Functional Network Dynamics via Multi-Scale Dictionary Learning and Network Continuums. ***ISBI*** 2016.

Interactive Exemplar-based Segmentation Toolkit for Biomedical Image Analysis. ***ISBI*** 2015.

Detecting cell assembly interaction patterns via Bayesian based change-point detection and graph inference model. ***ISBI*** 2014.

Discovering Common Functional Connectomics Signatures. ***ISBI*** 2013.

Fiber-centered Granger Causality Analysis. ***MICCAI*** 2011.