

Yuanhanqing Huang

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RESEARCH INTEREST

Analyze and interpret brain signals and temporal dynamics with data-driven models.

EDUCATION

Purdue University, West Lafayette 08/2018-Present

M.S. in Electrical and Computer Engineering **GPA:** 4.0/4.0

Tongji University, China 09/2013-06/2017

B.Eng. in Electrical Engineering, Automation **GPA:** 4.97/5.0 (rank: 1/86)

RESEARCH EXPERIENCE

Research Assistant, Laboratory of Integrated Brain Imaging, Purdue University

Advisor: Dr. Zhongming Liu 08/2018-Present

- Designing a Graph Neural Network to extract a low-dimensional embedding space of resting-state functional connectivity;
- Investigating the layer representations of neural networks trained by language tasks;
- Investigating how the layer representations of the self-attention model are related to representations in the human brain by using fMRI signals and brain encoding;

Research Assistant, BigLittle Laboratory, Tongji University

Advisor: Dr. Wei Zhang 03/2016-07/2017

- Developing a system to predict symptomatic intracerebral hemorrhage after thrombolysis for acute ischemic stroke with machine learning methods (co-advised by Yong Xia, Feng Wang);
- Designing recurrent neural networks (RNNs) to model the sequential change in the characters' relationships in literature data;
- Developed a mini-operational system core for the data logger on the Internet of Vehicles.

WORKING EXPERIENCE

LAIX Inc., Algorithm Group Shanghai, China

Algorithm Engineer 02/2018-07/2018

- Developing a chitchat bot based on information retrieval and Sequence2Sequence with attention methods;
- Developing a task-oriented virtual assistant and investigating the sentiment data of customers from this platform;

IBM, Client Innovation Center Shanghai, China

Technical Specialist 08/2017-02/2018

- Delivering consulting service concerning machine learning, statistics, and artificial intelligence to customers from BoC Hong Kong and Shanghai Pudong Development Bank;

IBM, Client Innovation Center Shanghai, China

Technical Consultant Internship 04/2017-07/2017

- Designing the machine learning algorithms to predict spontaneous intracerebral hemorrhage for the clinicians in Shanghai Sixth People's Hospital;
- Delivering unsupervised deep learning training to IBM Shanghai technical employees.

HONOR & AWARD

- Shanghai Outstanding Graduate 06/2017
- 2016 China National Scholarship 11/2016

- Meritorious Winner, MCM/ICM Contest 02/2016
- 2015 China National Scholarship 11/2015
- The National Second prize, China Undergraduate Mathematical Contest in Modeling 09/2015
- The Second Prize, Mathematical Contest in Modeling, Tongji University 05/2015
- 2014 China National Scholarship 11/2014
- The Second Prize, Advanced Mathematics Contest, Shanghai 10/2014
- The First Prize, Advanced Mathematics Contest, Tongji University 06/2014

TECHNICAL SKILLS

Computer Skills: Proficient in C/C++, Python (PyTorch, TensorFlow), MATLAB, Verilog, R, LaTeX, Golang

MRI Skills: Secondary operator of 3T Siemens Prisma