Qihong Lu

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University of Wisconsin-Madison, Madison, WI, U.S.A. Jan. 2013 ~ May. 2017

- B.S. Psychology & Mathematics & Computer Science (Minor)

- Comprehensive Honors

RESEARCH EXPERIENCE

Research Intern **Laboratory of Neural Coding** Summer 2013

P.I.: Dr. Longnian Lin, Shanghai Key Laboratory of Brain Functional Genomics

Research Assistant **Language and Cognitive Neuroscience Lab** 2013 ~ 2015

P.I.: Dr. Maryellen MacDonald & Dr. Mark Seidenberg, UW-Madison

Research Assistant **Knowledge and Concepts Lab** 2014 ~

P.I.: Dr. Timothy Rogers, UW-Madison

Visiting Researcher **The Parallel Distributed Processing Lab** Summer 2015 & 2016

P.I.: Dr. James McClelland, Stanford University

EXTRACURRICULAR ACTIVITIES

Tutor **Greater University Tutoring Service** 2013 ~ 2014

- Taught Calculus I/II and Introductory Biology.

Social Science Chair **IV·Ω Academic Society** 2013 ~ 2015

- Organized "mini-lectures" and presented recent advances in social science on the "idea circle".

Student Representative **Letter & Science Faculty Honors Committee** 2014 ~

- Discussing and revising academic policies and curriculum.
- Reviewing scholarship and research grant applications for undergraduate students.

HONORS & AWARDS

Undergraduate Research Scholar Award, Psychology Department, UW-Madison 2014 & 2015

- Nominated by Dr. Maryellen MacDonald & Dr. Timothy Rogers

Inducted to Psi Chi, Psychology Department, UW-Madison 2014

International Undergraduate Writing Contest, 3rd Place, Department of English, UW-Madison 2014

Welton Summer Sophomore Research Apprenticeship Grant, L&S Honors Program, UW-Madison 2014

Margaret and Allard Smith Scholarship, College of L&S, UW-Madison 2014

- High achieving second year student.

Inducted to Phi Beta Kappa as a junior, UW-Madison 2015

Hilldale Undergraduate Research Fellowship, College of L&S, UW-Madison 2015

Bromley Research Conference Travel Grant, L&S Honors Program, UW-Madison 2015

Center of Study of Language and Information Summer Research Fellowship, Stanford University 2015

David H. Durra Scholarship, College of L&S, UW-Madison 2016

-High achieving student in mathematics or physical sciences.

Undergraduate Travel Awards, Psychology Department, UW-Madison 2016

TECHNICAL SKILLS:

Significant experience: Matlab, Java, GitHub (https://github.com/QihongL)

Basic: R, Python (Tensorflow), Linux & Unix, LENS, SPSS, Latex

MANUSCRIPTS:

McClelland, J.L., Mickey, K., Hansen S., & **Lu, Q.** (manuscript in preparation). A Parallel-Distributed Processing approach to mathematical cognition.

Lu, Q., Cox, C., Rogers, T. T., Lambon Ralph, M.A., Takahashi R. (manuscript in preparation). An interactive account for human vision: a recurrent neural network explains neural and behavioral temporal dynamics of object recognition process.

CONFERENCE ABSTRACTS:

Cox, C. R., **Lu, Q.**, & Rogers, T. T. (2015). Iterative Lasso: An even-handed approach to whole brain multivariate pattern analysis. Poster presented at the 22nd *Cognitive Neuroscience Society annual conference*, San Francisco, CA.

Cox, C. R., **Lu, Q.**, & Rogers, T. T. (2015). Iterative Lasso: An even-handed approach to whole brain multivariate pattern analysis. Poster presented at the *Neuroimaging, Computational Neuroscience and Neuroengineering Workshop*, Madison, WI.

Lu, Q., & Rogers, T. T. (2016). An interactive model accounts for both ultra-rapid superordinate classification and basic-level advantage in object recognition. *Poster to be presented at the 38th Annual Meeting of the Cognitive Science Society*, Philadelphia, PA.

Lu, Q., & McClelland, J.L. (2016). Teaching a neural network to count: reinforcement learning with "social scaffolding". Poster submitted to the *15th Neural Computation and Psychology Workshop*, Philadelphia, PA.

TALKS:

Lu, Q., & Rogers, T. T. (2015). Modeling the temporal dynamics of human categorization behavior. Talk delivered at *2015 UW-Madison Undergraduate Research Symposium*, Madison, WI.

Lu, Q., & McClelland, J.L. (2015). Teaching a PDP model to count. Talk delivered at *Stanford Center of Study of Language and Information Summer Research Program Final Presentation*, Stanford, CA.

Lu, Q., & Rogers, T. T. (2016). A recurrent neural network for object recognition. Talk delivered at *2016 UW-Madison Senior Honors Thesis Symposium*, Madison, WI.

SELECTED COURSE PROJECTS:

Iterative reweighted Lasso and its application to neuroimaging data, ECE 532 Theory of Applications of Pattern Recognition, supervised by Dr. Robert D. Nowak

Within category visual coherence of a concept determines its top-down effect, Psych 411 Language and Thoughts, supervised by Dr. Gary Lupyan

PROFESSIONAL AFFILIATION:

Cognitive Neuroscience Society	2014 ~
Cognitive Science Society	2015 ~

ONLINE COURSE CERTIFICATES:

Model Thinking, Coursera, University of Michigan	Sep. 2013
Behavioral Economics in Action, edX, University of Toronto	Dec. 2013
Fundamentals of Neuroscience I, edX, Harvard University	Feb. 2014
Introduction to Dynamical System and Chaos, Santa Fe Institute	Mar. 2014

Moralities of Everyday Life, Coursera, Yale University Mar. 2014
Statistical Analysis of fMRI Data, Coursera, Johns Hopkins University Apr. 2014
Introduction to Complexity, Santa Fe Institute May 2014
Justice, edX, Harvard University Jul. 2014
Machine Learning, Coursera, Stanford University Aug. 2014
Introduction to Computer Science and Programming Using Python, Coursera, MIT Aug. 2014
The Brain and Space, Coursera, Duke University Jul. 2015
Statistical Learning, Stanford Online, Stanford University Apr. 2016
Build a Modern Computer from First Principles, Coursera, The Hebrew University of Jerusalem May 2016

Certificates available upon request

WORKSHOPS:

Growth Curve Analysis of Longitudinal Data at the Psychology Department, UW-Madison.
Quantum Models of Cognition and Decision at the 37th Annual Cognitive Science Society conference workshop.
Human Brain Project 1st Neuromorphic Computing Application Workshop, 22 March 2016
Contemporary Deep Neural Network Models at the 38th Annual Cognitive Science Society conference workshop.