# Qihong Lu

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2017-present **Ph.D.**, Psychology, Princeton University.

Advisor: Ken Norman, Uri Hasson

2013-2017 B.S., Psychology & Mathematics, University of Wisconsin-Madison.

Comprehensive Honors; Certificate in Computer Science

Advisor: Tim Rogers

## Research Experience

2014-2017 Knowledge and Concepts Lab, UW-Madison.

P.I.: Tim Rogers

Summer 2015 The Parallel Distributed Processing Lab, Stanford University.

& 2016 P.I.: Jay McClelland

2015 Lupyan Lab, UW-Madison.

P.I.: Gary Lupyan

2013-2015 Language and Cognitive Neuroscience Lab, UW-Madison.

P.I.: Maryellen MacDonald & Mark Seidenberg

Summer 2013 Laboratory of Neural Coding, Shanghai Key Lab of Brain Functional Genomics.

P.I.: Longnian Lin

## Extracurricular Activities

2014-2017 Student Representative, Faculty Honors Committee, UW-Madison.

- O Discussing and revising academic policies and curriculum for the Honors program.
- o Reviewing scholarship and research grant applications.

2013-2014 **Tutor**, Greater University Tutoring Service, UW-Madison.

o Taught Calculus I/II and Introductory Biology.

## Honors & Awards

- 2017 College of Letters & Science Dean's Prize, UW-Madison.
- 2017 Undergraduate Academic Achievement Award, UW-Madison.
- 2017 Outstanding Undergraduate Research Scholar Award, UW-Madison.
- 2016 **David H. Durra Scholarship**, UW-Madison.

High achieving student in physical sciences or mathematics.

2016 Undergraduate Travel Awards, UW-Madison.

- 2015 Phi Beta Kappa as a junior, UW-Madison.
- 2015 Hilldale Undergraduate Research Fellowship, UW-Madison.
- 2015 Bromley Research Conference Travel Grant, UW-Madison.
- 2015 CSLI Summer Research Internship, Stanford.
- 2014, 2015 **Undergraduate Research Scholar Award**, UW-Madison. Nominated by Dr.Maryellen MacDonald & Dr.Timothy Rogers
  - 2014 International Undergraduate Writing Contest 3<sup>rd</sup> Place, UW-Madison.
  - 2014 Margaret E. and Allard Smith Scholarship, UW-Madison.
  - 2014 Welton Summer Sophomore Research Grant, UW-Madison.

## Papers

- **Lu, Q.**, Cox, C., Rogers, T. T., Lambon Ralph, M., & Takahashi R. (manuscript in preparation). An interactive account for human vision: a recurrent neural network explains neural and behavioral temporal dynamics of object recognition processes.
- McClelland, J.L., Mickey, K., Hansen S., & **Lu, Q.** (manuscript in preparation). A Parallel-Distributed Processing approach to mathematical cognition.
- Wang, T., Lu, Q. & Seidenberg, M.S. (submitted). The role of transitional probability in reading Chinese.

#### Posters

- **Lu, Q.**, & Rogers, T. T. (2016). An interactive model accounts for both ultra-rapid superordinate classification and basic-level advantage in object recognition. Poster presented at the 38<sup>th</sup> 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 presented at the 15<sup>th</sup> Neural Computation and Psychology Workshop, Philadelphia, PA.
- 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 22<sup>nd</sup> 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.

#### Talks

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

#### Technical Skills

Matlab, Python, R, Java, GitHub, LENS, LATEX

# Undergraduate Mentoring

2016 Molly Ryan, UW-Madison. Assessing the localization of motion representation in the brain

### Professional Affiliations

Society for Neuroscience

Cognitive Science Society

Cognitive Neuroscience Society

ReScience, ad hoc review

# Workshops Attended

- 2017 **Mixed Model Workshop**, Princeton.
- 2017 **Data Carpentry Workshop**, UW-Madison.
- 2016 Contemporary Deep Neural Network Models, the 38<sup>th</sup> CogSci workshop.
- 2015 Quantum Models of Cognition and Decision, the 37<sup>th</sup> CogSci workshop.
- 2014 Growth Curve Analysis of Longitudinal Data, UW-Madison.

#### Online Course Certificates

- 2017 Structuring Machine Learning Projects, deeplearning.ai.
- 2017 Hyperparameter tuning, Regularization and Optimization, deeplearning.ai.
- 2017 Neural Networks and Deep Learning, deeplearning.ai.
- 2017 **Principles of fMRI 1**, *Coursera*, Johns Hopkins & Colorado Boulder.
- 2016 **Statistical Learning**, Stanford Online.
- 2016 **Build a Computer from 1<sup>st</sup> Principles**, *Coursera*, Hebrew University of Jerusalem.
- 2015 The Brain and Space, Coursera, Duke University.
- 2014 Machine Learning, Coursera, Stanford University.
- 2014 Fundamentals of Neuroscience I, edX, Harvard University.
- 2014 Introduction to Dynamical System and Chaos, Santa Fe Institute.
- 2014 Introduction to Complexity, Santa Fe Institute.
- 2014 Moralities of Everyday Life, Coursera, Yale University.
- 2014 Statistical Analysis of fMRI Data, Coursera, Johns Hopkins University.
- 2014 **Justice**, edX, Harvard University.
- 2014 Intro to Computer Science & Programming Using Python, Coursera, MIT.
- 2013 **Behavioral Economics in Action**, *edX*, University of Toronto.
- 2013 Model Thinking, Coursera, University of Michigan.

(Certificates available upon request)