

## Xiaojue Zhou

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### EDUCATION

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FALL 2018 – PRESENT

**PhD, Cognitive Neuroscience**  
University of California - Irvine

FALL 2012 – SPRING 2016

**Bachelor of Science, Psychology and Statistics (Honor)**  
University of Wisconsin - Madison

### RESEARCH EXPERIENCE

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#### Graduate Researcher

Sep 2018 - Current

Visual Perception and Neuroimaging Lab

Advisor: Emily Grossman

- Collect, preprocess and analyze data for brain regions related to action perception
- Mentor undergraduate research assistant

#### Research Specialist

May 2016 – July 2018

Kalin Lab, University of Wisconsin – Madison, School of Medicine and Public Health

Advisor: Ned Kalin

- Construct preprocessing pipeline using ANTS, FSL, Afni, and DTI-TK and analyze non-human primate and human structural data, resting-state fMRI, PET and DTI
- Diagnose and improve anatomy T1 normalization and skull-stripping in different development stage's nonhuman primates
- Investigate correlation between longitudinal changes of non-human primate's behaviors and neuroimaging (resting-state fMRI and PET) to understand anxiety development in brain and contributing factors

#### Research Assistant

January 2015 – August 2016

Knowledge and Concepts Lab, University of Wisconsin – Madison

Advisor: Timothy Rogers

- Employ parallel computing techniques (HTC Condor) to facilitate analysis of fMRI data in MATLAB and Unix environment
- Analysis of cross-modality cognition fMRI data to find object mental representations by using modified LASSO including 3D neuron grouping feature
- Collect, organize and transform fMRI coordinates from over 125 literatures and perform meta-analysis to find human category representations in brain

#### Research Intern

June 2015 – Oct 2015

Stanford Cognitive & Systems Neuroscience Lab, Stanford School of Medicine

- Score behavioral tests such as WASI WAIT from children and interpret results
- Literature review DTI studies and produce experimental questions about white matter

- development of language ability, mathematical ability and face perception
- Preprocess 45 subject's DTI data using existing preprocessing pipeline

### Research Assistant

Sep 2013 – June 2015

Language and Cognitive Neuroscience Lab, University of Wisconsin Madison

Advisor: Maryellen McDonald

- Construct pictures naming experiment using Qualtrics and collect data on Amazon Turk
- Establish experimental procedure in Eprime to see priming effects of Chinese words on semantic level perception
- Analyze research data by calculating various feature statistics to get most reliable and items to represent Chinese naming agreements

## TEACHING EXPERIENCE

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### Teaching Assistant

Sep 2018 – Current

University of California-Irvine

- Probability & Statistics
- Cognitive Neuroscience
- Introduction to Linguistics

## HONORS AND AWARDS

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2015

### Trewartha & Mensink Honors Senior

Awarded for Senior Thesis: Statistical Analysis of Weighted Survey Data

## PUBLICATIONS

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Oler, J., Kenwood, M., Fox, A., Tromp, D., **Zhou, X.**, Riedel, M., ... & Kalin, N. (Under Review). 833- Fibers coursing through the orbitofrontal cortex are critical for the modulation of primate dispositional anxiety. *Journal of Neuroscience*

## PRESENTATIONS

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“Statistical Analysis of Weighted Survey Data”, Senior Honor Thesis Symposium, University of Wisconsin – Madison, 2016

## TECHNICAL/STATISTICAL SKILLS

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*Neuroimaging processing:* ANTS, AFNI, FSL, DTI-TK

*Programing:* R, Bash/Cshell R, MATLAB, Python, SPSS, Perl

*Prallel computing:* HTC Condor, H2O (similar to Spark)

*Documentation:* Excel, LaTeX, Markdown, Eprime, Adobe Photoshop

*Language:* Chinese, English, Japanese

## EXTRACURRICULAR ACTIVITIES

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IMPAS 2014 Annual Meeting of the Psychometric Society

2015 DataHackthon: Rise of the Machines

2017 Wisconsin Symposium on Emotion

2017 Beyond the lab: using big data to discover principles of cognition by Psychonomic Society