

# YICONG (ALAN) ZHENG

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<http://zycyc.github.io>

## EDUCATION

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### Department of Psychology, University of California, Davis (UCD)

Davis, CA

Psychology PhD student

Sep 2020 – Present

- Courses: Statistics, Memory Meeting, Brownbag Meeting in PCCN

### School of Psychology, Beijing Normal University (BNU)

Beijing, China

B.S. Psychology

Sep 2016 – Jun 2020

- GPA: 88.59/100.00
- Selected Awards: First Prize Scholarship (Top 10%; 2016-17), Second Prize Scholarship (Top 20%; 2017-18), Undergraduate Research Grant (2017-18; 2018-19), First Prize in BNU Research Thesis Award (Top 5%; 2018-19)

### Department of Psychology, University of California, Berkeley (UCB)

Berkeley, CA

Exchange student

Jan – Jun 2019

- GPA: 4.0/4.0
- Courses: Introduction to Western Music Discussion, Computational Models of Cognition, GRE prep, Structure and Interpretation of Computer Programs

## WORK AND RESEARCH EXPERIENCE

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### University of California, Davis (UCD)

Davis, CA

Dynamic Memory Lab & CCN Lab (PI: Prof. Charan Ranganath & Prof. Randall O'Reilly)

Jun 2019 – Present

*Graduate Student*

- Led the project of building a biologically plausible hippocampus model with error-driven learning in CA3
- Led the fMRI project of studying structure, content, and goal representation in spatial memory using VR.

### University of California, Davis (UCD)

Davis, CA

Dynamic Memory Lab (PI: Prof. Charan Ranganath)

Jun 2019 – Mar 2020

*Research Assistant*

- Led the Temporal Sequence project examining different roles of theta/alpha/beta oscillations in temporal sequence learning in schizophrenia patients; supervised by Prof. Charan Ranganath and Prof. Daniel Ragland
- Led the project of building a computational model for the Temporal Sequence study using the Leabra; supervised by Prof. Randall O'Reilly
- Organized EEG preprocessing pipeline in MATLAB using EEGLAB (*Available [here](#)*)

### University of California, Berkeley (UCB)

Berkeley, CA

The Whitney Lab (PI: Prof. David Whitney)

Jan 2019 – Jun 2019

*Research Assistant*

- Assisted the study of the underlying mechanism of object stabilization under Prof. William Prinzmetal's supervision, specifically how "serial dependence" contributes to stabilize our perception across time, with different kinds of features and under various modalities (*Read more about it [here](#).*)
- Wrote the experiment program using Python PsychoPy, conducted behavioral experiments (online data collection included), assisted data analysis using Python

### Beijing Normal University (BNU)

Beijing, China

The Center for Brain and Cognitive Learning Sciences (PI: Prof. Gui Xue)

Mar 2017 – Jun 2020

*Research Assistant / Project Leader*

- Led the project, “Musical Sequence Memory of the Human Brain: A Study Based on EEG” under Prof. Gui Xue’s supervision, which studies the Event Related Potential (ERP) of human sequential memory of music
- Wrote the experiment program using MATLAB Psychtoolbox, made musical materials using Logic Pro X, conducted behavioral and EEG experiments, analyzed EEG data using EEGLAB

## PUBLICATION

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- **Zheng, Y.**, Liu, X. L., Nishiyama, S., Ranganath, C., & O’Reilly, R. C. (2021). Correcting the Hebbian Mistake: Toward a Fully Error-Driven Hippocampus. *bioRxiv*.
- **Zheng, Y.** \*, Liu, X. L. \*, Hsieh, L. T., Hurtado, M., Wang, Y., Niendam, T. A., ... & Ragland, J. D. (2021). Disrupted Modulation of Alpha and Low Beta Oscillations Mediates Temporal Sequence Memory Deficits in People With Schizophrenia. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 6(12), 1157-1164.

\* These authors contributed equally to this work

## CONFERENCE PRESENTATIONS

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- **Zheng, Y.**, Sun, P., Liu, X. L. (December, 2021). The effect of working memory on testing effect: interaction between capacity and demands. Context and Episodic Memory Symposium – International, Online.
- **Zheng, Y.**, Liu, X. L., Nishiyama, S., Ranganath, C., & O’Reilly, R. C. (November, 2021). Correcting the Hebbian Mistake: Toward a Fully Error-Driven Hippocampus. The Society for Neuroscience Annual Meeting, Online.
- Liu, X. L.\*, **Zheng, Y.**\*, Ranganath, C., Niendam, T. A., Carter, C. S., & Ragland, J. D. (April, 2020). Low Frequency Neural Oscillations Associated with Deficits in Sequence Learning in People with Schizophrenia. The Society of Biological Psychiatry Annual Meeting, New York, NY, USA.

\* These authors contributed equally to this work

## AD HOC REVIEWER

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Memory & Cognition

PLOS One

## LANGUAGE AND PROFESSIONAL SKILLS

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- Computer skills: MATLAB, Psychtoolbox, Python, PsychoPy, R, Go, C, HTML, LaTeX, SPSS
- Online data collecting experience: Qualtrics, Pavlovia
- Languages: Chinese (native), English (fluent)
- GRE: V 159, Q 167, Writing 4 (Total 326/340 + 4/6)
- TOEFL: Reading 27, Listening 27, Speaking 27, Writing 27 (Total 108/120)

## LEADERSHIP AND COMMUNITY ACTIVITIES

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**Xinmiao Xinhua Psychology**

*Counseling Intern*

Beijing, China

Mar – Jun 2018

- Studied techniques of counseling including sandplay therapy and imagery dialogue therapy
- Participated in counseling simulations under supervision of psychological therapists

**Official Popular Science Account of School of Psychology**

*Zhihu (Chinese Quora) Leader*

- Ran official psychological popular science account of School of Psychology, BNU
- Wrote psychological popular science articles and replied to backstage messages
- Attained over 361,000 follows

Beijing, China  
Apr 2017 – Dec 2018

**Volunteer Teacher for After-School Program**

*Psychological Counseling Teacher*

- Participated in voluntary counseling in Changying Party–Masses Community
- Taught children simple knowledge of psychology and healthy physical activity

Beijing, China  
Sep 2016 – Jan 2017