

# Linfan Gu

Ph.D. Candidate  
Bioengineering Graduate Program  
University of California, Los Angeles

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## EDUCATION

- 2021- **Ph.D. Candidate, Bioengineering (Neuroscience focus)**  
University of California, Los Angeles
- 2016 - 2020: B.S., Biomedical Sciences, Zhejiang University &  
B.Sc.(Hons), Integrative Biomedical Sciences, University of Edinburgh  
Classification: **First-Class Honors**

## ACADEMIC POSITIONS

- 2021 - Present Graduate Student, UCLA  
*Neural Mechanisms of Collective and Cooperative Behaviors in Biological and Artificial Intelligence Systems*  
Mentor: Weizhe Hong, Thesis Committee: Weizhe Hong, Jonathan Kao, Dean Buonomano, Aaron Meyer
- 2020 - 2021 Research Assistant  
*Neural Mechanisms of Inter-brain Synchrony Between Dyadic Mice Engaged in Social Interactions*  
Mentor: Weizhe Hong (UCLA), Michael Okun (University of Leicester)
- 2019 Independent Undergraduate Researcher  
*Investigating Brain Activity Patterns Associated with Emotion and Memory Through Multi-voxel fMRI Analysis*  
Mentor: Gedi Luksys (University of Edinburgh)
- 2019 - 2020 Independent Undergraduate Researcher  
*The Role of t-RNA Synthetase in neural development and the Pathogenesis of Charcot-Marie-Tooth Diseases*  
Mentor: Ge Ba (Zhejiang University)
- 2018 - 2019 Student Research Training Program, Zhejiang University  
*Brain Mechanisms Underlying Abnormal Aggressive Behaviors in Autism Spectrum Disorder*  
Mentor: Junyu Xu (Zhejiang University)

## FELLOWSHIPS AND GRANTS

"Non-canonical Role of Met-RS in Healthy Neurons and Pathogenesis CMT2U", Student Research Training Project 2019, Zhejiang University

"Abnormal Aggressive Behaviors in Autism Spectrum Disorders and its Brain Mechanisms", Student Research Training Project 2018, Zhejiang University

## AWARDS AND HONORS

2020 - Zhejiang University Outstanding Graduate Award (1% per year)

2017-2019 - Zhejiang University Outstanding Student Award

2017-2019 - Academic Scholarship, Zhejiang University-University of Edinburgh Institute (6 students per year)

2017 - Outstanding Volunteer Award, Zhejiang University International Campus

## PUBLICATIONS

(\* equal contribution)

Jiang M.\*, **Gu L.\***, Ma M., Kao J., Hong W. (2025) The Emergence and Neural Mechanisms of Cooperative Behavior in Biological and Artificial Intelligence Systems. *In Revision at Science*

Raam T.\*, Li Q.\*, **Gu L.\***, Elagio G., Lim K.Y., Zhang X., Correa S.M., Hong W. (2024) Neural basis of collective social behavior during environmental challenge. *In Revision at Nature Neuroscience*.  
BioRxiv Pre-print: <https://doi.org/10.1101/2024.09.17.613378>

Liu H, Tang M, Yu H, Liu T, Cui Q, **Gu L**, Wu ZY, Sheng N, Yang XL, Zeng L, Bai G. (2023) CMT2D neuropathy is influenced by vitamin D-mediated environmental pathway. *J Mol Cell Biol.* doi: 10.1093/jmcb/mjad029

Zheng J, Tian Y, Xu H, **Gu L**, Xu H. (2021) A Standardized Protocol for the Induction of Specific Social Fear in Mice. *Neurosci Bull.* doi:10.1007/s12264-021-00754-0.

Xu J, Du YL, Xu JW, Hu XG, **Gu LF**, Li XM, Hu PH, Liao TL, Xia QQ, Sun Q, Shi L, Luo JH, Xia J, Wang Z, Xu J. (2019) Neuroligin 3 Regulates Dendritic Outgrowth by Modulating Akt/mTOR Signaling. *Front Cell Neurosci.* doi:10.3389/fncel.2019.00518.

## INVITED TALKS

2025 "The Crosstalk Between Neuroscience and AI", Department of Neurobiology, UCLA

## CONFERENCE ABSTRACTS

Raam T, Li Q, Gu L, Lim K, Elagio G, Correa S, Hong W (2024) Prefrontal encoding of group huddling behavior during cold stress. Annual Meeting, Society for Neuroscience. Chicago, IL.

## **TEACHING AND MENTORING EXPERIENCE**

2024 - Present     Mentored Undergraduate Student, UCLA

Summer 2023     Mentored Rotation Student, UCLA

Spring 2023     Teaching Assistant, Bioengineering Laboratory BIOENGR167L

Winter 2022     Teaching Assistant, Neuroscience Laboratory NEURO101L

Summer 2021     Teaching Assistant, Computational Neuroscience Course, Neuromatch Academy

## **COMMUNITY BUILDING AND PUBLIC ENGAGEMENT**

2025             Event Coordinator, Pint of Science LA  
Coordinated science outreach events in public venues

2025             Brain Awareness Week, UCLA  
Organized lab tours for underrepresented middle school students

2024 - 2025     Newsletter editor and content coordinator, Brain Research Institute, UCLA  
Strengthened community engagement and amplified diverse voices at UCLA

2023             Volunteer at Exploring Your Universe, UCLA  
Science demonstration for primary school and middle school students

2017 - 2019     Head of Volunteer's Department, Zhejiang University International Campus  
Organized outreach events at local museums and libraries, and collaborated with local inclusive education programs to host a campus showcase.

2016 - 2018     Student Representative  
Coordinating student-instructor communication and events

## **SKILLS**

Experiment: Microendoscopic miniscope calcium imaging, Neuropixels Recording, Rodent behavioral assays

Computer: Python (Proficient), MATLAB (Proficient), SLEAP, Adobe Suite, Graphpad Prism, MS Office

Languages: English (Fluent), Mandarin (Fluent), Hindi (Basic)

Extracurricular Activities: Dance, Gymnastics, Basketball