

# RONGRONG(LORI) LIU

7693 Palmilla Dr, CA

🌐 LoriRongrong ◊ in Rongrong Liu

## EDUCATION

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potatoes. **University of California, San Diego**

*Expected December 2021*

**BS in Cognitive Science** specialized in Machine Learning and Neural Computation.

**BS in Probability and Statistics**

**Minor in Computer Science**

Overall GPA: 3.89/4.00

- Honor: Phi Beta Kappa

- Related Courses: *Differential Equations, Computer Organization and Systems Programming, Intro to Machine Learning, Graph Theory, Statistics, Probability, Calculus, Foundation of Analysis Linear Algebra, Modeling and Data Analysis, Basic Data Structure*

## RESEARCH EXPERIENCE

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**System Energy Efficiency Lab - Rosing Lab**

September 2018 - Present

*Undergraduate Researcher*

*La Jolla, CA*

- Lead a team of 2 students, collecting ambient light data from a self-assembled portable light sensor for participants and an indoor stationary sensor for artificial lighting.
- Construct and trained a Multi-Layer Perceptron model to accurately estimate an individuals ambient light exposure.

**Summer Research Program at EPFL - Ramdya Lab**

July 2019 - August 2019

*Undergraduate Researcher*

*Lausanne, Switzerland*

- Explored angle oscillations of leg joints in forward-walking of *Drosophila melanogaster* biomechanical model with Python by building an architecture of a one-leg oscillation center with 6 coupled nonlinear oscillators to represent 4 joints.
- Tuned 37 parameters for oscillation center using Particle Swarm Optimization.

**The Scripps Research Institute - Stowers Lab**

December 2018 - March 2019

*Undergraduate Researcher Assistant*

*La Jolla, CA*

- Mapped different USVs (ultrasonic vocalizations) of mice with activities of neurons to understand the potential neural mechanism of mice social vocalization.
- Analyzed the USVs in order to identify spatial and spectral features of mice vocalization under different social conditions.

**Perception and Cognition Lab**

April 2018 - September 2018

*Undergraduate Research Assistant*

*La Jolla, CA*

- Assist in behavioral research on the patterns of reaction time and accuracy when people perceive and evaluate the axis angle, and in EEG study on the relationship between brain activities and decision-making critical time period
- Recruited participants, arranging test sessions and collecting data for analysis.

## CONFERENCES AND EVENTS

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**Liu, R.,** Lobato, V. R., Ramdya, P.(2019, August). Coupled Oscillators for Legs of *Drosophila melanogaster* Biomechanical Model. Poster presented at the Summer Research Program Poster Symposium at Ecole polytechnique fdrale de Lausanne, Lausanne (EPFL), Switzerland.

**Liu, R.,** Vu, C., Vanzant, B., Chitrarasu, J., Ostertag, M., Rosing, T. (2019, June). Machine Learning to Approximate Ambient Light Exposure. Poster presented at the University of California, San Diego 2019 Early Research Scholar Program Symposium, San Diego, CA.

## LEADERSHIP

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### Undergraduate Tutor

March 2020 - Present

*Computer Science Department*

*La Jolla, CA*

- Provide assistance on understanding content during lab hours and assist in creating programming assignments,

### Extended Board Member

November 2018 - Present

*Cognitive Science Student Association, Professional and Academic Development Dept.*

*La Jolla, CA*

- Coordinate and assist in National Cognitive Science Conference and Cognitive Science Talk Series for more than 1000 students with department fellows.

### Undergraduate Instructional Assistant

Jan 2019 - June 2019

*Cognitive Science Department*

*La Jolla, CA*

- Promoted active learning by leading weekly lecture-style reviews for a section of 60 students, facilitating in-class discussions and activities, designing review and test questions, and attending weekly meeting with fellow instructional assistants and class instructors.

### Student Worker

July 2018 - March 2019

*Office of Vice Chancellor - Student Affairs*

*La Jolla, CA*

- Engaged in office daily running by planning daily office routine, organizing and tracking over 20 annual Units Assessment Reports from different departments including Student Retention Success and Enrollment Management, and assisting in interdepartmental events.

### Calfresh Intern

October 2017 - September 2018

*Associate Student*

*La Jolla, CA*

- Coordinated Calfresh info sessions and conducted on-campus outreach by answering questions associated with program eligibility and directing conversations to coordinator.

## SKILLS

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### Computer Languages

Python, Java, MatLab, C

### Software & Tools

Unix, LaTeX, Git, Microsoft Office

### Speaking Languages

Chinese (native), English (fluent)

### Interests

Oil Painting, Hiking