

RONGRONG(LORI) LIU

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🌐 LoriRongrong ◊ in Rongrong Liu

EDUCATION

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

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

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

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

Computer Languages

Python, Java, MatLab, C

Software & Tools

Unix, LaTeX, Git, Microsoft Office

Speaking Languages

Chinese (native), English (fluent)

Interests

Oil Painting, Hiking