

EDUCATION | **RICE UNIVERSITY, HOUSTON, TX** AUG 2014 - MAY 2018
B.A. in Cognitive Sciences
Minor in Neuroscience
Minor in Computational and Applied Mathematics

- **GPA:** 3.92 out of 4.00
- **Thesis:** *Multisensory context warps time perception* (completed May 2017)

AWARDS & HONORS | Cognitive Computational Neuroscience student travel award 2017
Barry M. Goldwater Scholarship honorable mention 2017
Computational and Systems Neuroscience (Cosyne) undergraduate travel award 2016
Rice Undergraduate Scholars Program research grant (\$3000 in total) 2016 - 2018
Rice Undergraduate Research Symposium neuroscience poster prize 2015
President's Honor Roll (Top 30% of Rice by semester GPA) 2014 - 2017

RESEARCH | **BAYLOR COLLEGE OF MEDICINE, HOUSTON, TX** JAN 2015 - PRESENT
Advisor: Dr. Jeffrey Yau

- Designing psychophysical experiments and building computational models to understand how flexible perceptual outcomes arise from multisensory cue interactions.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MA JUN 2016 – AUG 2016
CENTER FOR SENSORIMOTOR NEURAL ENGINEERING (CSNE) NSF REU PROGRAM
Advisor: Dr. Mehrdad Jazayeri

- Designed experiments, collected and analyzed data from human subjects performing a time reproduction task to test Bayesian models of memory recall in interval timing.

JANELIA RESEARCH CAMPUS, ASHBURN, VA JUN 2017 – AUG 2017
JANELIA UNDERGRADUATE SCHOLARS PROGRAM
Advisor: Dr. Joshua Dudman

- Used population recordings to understand how the motor cortex and striatum select for reward-seeking actions.

PRESENTATIONS & PAPERS | **Lai, L., Magnotti, JF., Yau, JM.** *Flexible multisensory perception includes repulsive integration.* paper: in preparation.

Lai, L., Magnotti, JF., Yau, JM. *Multisensory context warps time perception.* Cognitive Computational Neuroscience meeting, New York, NY, conference paper: September 7, 2017.

Lai, L., Dudman, JT. *Neural correlates of action kinematics in the dorsal striatum.* Janelia Undergraduate Scholars symposium, Ashburn, VA, poster: August 3, 2017.

Lai, L., Magnotti, JF., Yau, JM. *Contextual determinants of cue binding or separation in multisensory time perception.* International Multisensory Research Forum annual meeting, Nashville, TN, poster: May 21, 2017.

Lai, L., Yau, JM. *Attractive and repulsive multisensory interactions in time perception.* Society for Neuroscience annual meeting, San Diego, CA, poster: November 14, 2016.

Lai, L., Jazayeri, M. *Characterizing variability in memory recall of time intervals.* Center for Sensorimotor Neural Engineering REU Symposium, Seattle, WA, poster: August 17, 2016.

Lai, L., Yau, JM. *Audio-tactile interactions in the time domain.* Rice Undergraduate Research Symposium, Houston, TX, poster: April 15, 2015; April 16, 2016.

TEACHING**COLL 158: HOW MUSIC PLAYS THE BRAIN, RICE UNIVERSITY**

S 2017, F 2017, S 2018

COURSE INSTRUCTOR

- o Designed and taught a seminar course on the intersection of music and neuroscience. Topics include the neurobiology of music perception and cognition, music therapy, AI and music, etc. Course approved by the Dean of Undergraduates.

TEACHING ASSISTANT, RICE UNIVERSITY

- o Teaching assistant/grader for the following undergraduate courses:
 1. NEUR/PSYC 362: Cognitive Neuroscience S 2016, S 2017, S 2018
 2. NEUR/CAAM 416: Neural Computation S 2018
 3. PSYC 203: Cognitive Psychology F 2015, S 2018
 4. NEUR/BIOC 385: Cellular and Molecular Neuroscience F 2016
 5. STAT 310: Probability and Statistics F 2016
- o *Responsibilities include:* leading review sessions, creating exam review material, grading exams and homework sets, and holding weekly office hours to assist students in mastery of material.

BRAINSTEM, KIPP SUNNYSIDE HIGH SCHOOL

SEP 2015 – PRESENT

HEAD MENTOR

- o Mentored a small group of high school students through a basic neuroscience curriculum. Helping promote STEM interest to underrepresented minority students in an underprivileged neighborhood.

SPLASH, RICE UNIVERSITY

2017 – PRESENT

- o Taught middle schoolers from Houston-area schools about neuroscience at an annual college exploration fair.

**ACTIVITIES
& LEADERSHIP****HEAD ACADEMIC FELLOW, LOVETT COLLEGE**

APR 2016 – PRESENT

- o Led 18 Lovett Academic Fellows in overseeing the academic wellness of Lovett College through peer-to-peer tutoring, professional and academic development, and exam review sessions.
- o Organized the annual Lovett Undergraduate Research Symposium to provide students a platform to present their research and receive constructive feedback from faculty.

RICE NEUROSCIENCE SOCIETY

SEP 2014 – PRESENT

MENTOR

- o Publicized neuroscience events such as journal clubs and seminar series occurring at Rice and in the Texas Medical Center.
- o Advised students interested in neuroscience research and the neuroscience minor; worked with faculty in developing the neuroscience major at Rice

CATALYST, RICE UNDERGRADUATE SCIENCE RESEARCH JOURNAL

OCT 2014 – OCT 2016

EXECUTIVE EDITOR

- o Oversaw a team of writers and editors that published weekly blogs on influential scientific topics with the goal of making science research accessible to the public.

RICE ALUMNI WEEK COORDINATOR

SEP 2015 – MAR 2016

LOVETT COLLEGE COORDINATOR

- o Planned, publicized, fundraised for Rice's largest annual alumni weekend, or "Willy Week." As one of the oldest traditions dating back to 1957, the week culminates in the world's largest water balloon fight and competitive bike race.

URBAN IMMERSION

JUL 2014 – DEC 2015

2015 COORDINATOR, 2014 PARTICIPANT

- o Coordinated a week-long service and civic involvement program for incoming Rice students involving projects with local non-profit organizations.

**PROFESSIONAL
EXPERIENCE**

EXPLORING THE MIND THROUGH MUSIC, RICE UNIVERSITY

JUL 2015 – JUN 2016

CONFERENCE COORDINATOR

- Co-organized a week-long interdisciplinary research conference bringing experts in music and neuroscience together at Rice's Shepherd School of Music.
- *Responsibilities included:* inviting conference speakers, logistics and publicity, reviewing abstract submissions, and organizing speaker presentations.

RICE UNIVERSITY WELCOME CENTER

SEP 2014 – MAY 2015

STUDENT ASSISTANT

- Served as a campus ambassador and student representative for visitors to Rice by giving tours to school groups, community members, and international VIPs.

**SKILLS
& OTHER INFO**

Programming: MATLAB, Python, R

Lab: psychophysics, fMRI, *In-vivo* acute electrophysiology, mouse behavior

Computational: Bayesian inference, simulations, model fitting/selection, ML algorithms

Software: AFNI (fMRI), PsychToolbox3, Adobe Creative Suite, Microsoft Suite, Keras, TensorFlow

Interests: classical piano, violin, poetry, long-distance running, coffee