

# RAY L C

neuro integrative design

## PROFILE

use knowledge of human brain and psychology to create intelligent devices, spaces, and fashions in interaction-based systems.



## CONTACT

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research | [rayluo.bol.ucla.edu/projects](http://rayluo.bol.ucla.edu/projects)  
photography | [facebook.com/rayLCphoto](https://facebook.com/rayLCphoto)  
portfolio | [recfreq.github.io](https://recfreq.github.io)

## EXPERTISE

soft | adobe-CC premiere solidworks arduinos

programming | matlab c++ processing js unity

languages | english chinese japanese spanish

design | photography drawing fabrication sew

## EDUCATION

2017 - pres | Parsons School for Design  
Design and Technology MFA candidate

2013 - 2017 | Tokyo MODE Gakuen (東京モード学園)  
Fashion Technology, MPS 2017

2000 - 2003 | University of California, Berkeley  
Electrical Engineering and Computer Sciences, BS 2003

## EXPERIENCE

RIKEN BRAIN SCIENCE INSTITUTE & UCLA | 2012 - 2016  
Research Scientist: rewards are necessary to reduce anxiety in everyday tasks

PALO ALTO RESEARCH CENTER | 2003 - 2005  
Research Intern: built steerable filter and particle filter probabilistic tracking algorithm for predicting human positions in cluttered videos

UC BERKLEY GROUP FOR USER INTERFACE RESEARCH | 2002 - 2005  
Research Assistant: built a wall-sized interface that uses computer vision to recognize gestures, post-it notes, and touch for web design

UC BERKELEY COGNITION AND ACTION LABORATORY | 2002 - 2005  
Research Assistant: created virtual haptic environment in design of experiments

STOTTLER HENKE ARTIFICIAL INTELLIGENCE CONSULTING | 2005  
Software Intern: built artificially intelligent commander interface for air force

POMONA COLLEGE PSYCHOLOGY LABORATORY | 1999-2000  
Research Assistant: hierarchical semantics determines relative decision tasks

## ACTIVITIES

2016 Falling Walls Tokyo Speaker: "breaking down the wall of mystery of creation"

2015 JSPS Kakenhi Wakate B (科研費若手) grant-in-aid for young scientists 25871125

2014 12th 1\_Wall Gallery Group Show: "ダンス目なし" at Guardian Garden Ginza

2014 Bohol Office of Tourism Photo Exhibit "kapayapaan: philippines before haiyan"

2012 Editor in Chief, UCLA Mental Note newsletter

2009 A&E Editor, UCLA Pacific Ties magazine and rep speaker at Campus Progress conf

2006 Eugene V. Cota-Robles fellowship at UCLA



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## INTERESTS

statistical learning  
affective computing  
3D fabrication  
network visualization  
fashion technology  
narrative design



## HUMAN NETWORKS

Want to make the world a better place for humans? Make humans a better species for the world. I study the interactions within and amongst humans that make it possible to improve human lives through better communication, from the point of view of critical design, neuroscience, and narrative art.

## MACHINE INTELLIGENCE

Classical AI was an attempt to emulate thinking from the human mind point of view, while modern AI disards the human point of view entirely and attempts to make efficient algorithms. My aim is to instead, create intelligences embedded in networks that make devices understandable and relatable to humans, so that our world can talk with us and we can communicate with others and with ourselves.

## CURRENT WORK

To allow people from different cultures and people with emotional deficits to communicate with each other, we're working on AI embedded fashion that allows smarter communication between humans using arduino and computer vision.

[<https://recfreq.github.io/inusfashion/inusfashion.html>]

As the world become more saturated with news, scientific facts, and theories, we need a language that allows to show integrated concepts. One word can have different meanings in a given language, so "love" can mean familial love, sexual love, or love of country. I propose a language that uses multisensory stories as its basic morpheme. Experiments with the concept has been implimented in Processing.

[<https://recfreq.github.io/stream/stream.html>]

Machines are becoming specialized and hard to understand. Instead of simplifying in the digital realm, I aim to adapt the digital to humans by creating smart robots and programs that evoke emotional reactions. They can be caring, flaky, nagging, trusty, attention-craving, occasionally angry, and mildly jealous. A harmonious future involves machines that are part of the human ecology instead of opposing it.

[<https://recfreq.github.io/>]

Looking to assist, collaborate, and converse in areas related to design, including UX, product, space, technology, AI, and speculative design. I'm excited to work in interdisciplinary teams, such as those in my previous fashion, scientific, and art projects.