

RAY L C

neuro interaction design

PROFILE

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



EXPERTISE

software | adobeCC premiere rhino3d arduino

programming | matlab c++ processing js unity

languages | english chinese japanese spanish

design | photography illustration prototyping

skills | 3Dprinting sculpture garments jewelry

CONTACT

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research | rayluo.bol.ucla.edu/projects
photography | facebook.com/rayLCphoto
portfolio | rayLC.org

EDUCATION

2017 - pres | Parsons School of 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

PARSONS SCHOOL OF DESIGN | 2017 - 2018
Research: built rotating 3-projector narrative installation with Prof Jess Irish, working on intelligent interactive desk lamp with Prof Carla Diana.

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 AI particle filter command center interface for DARPA.

EXHIBITIONS, GRANTS

2018 | Verizon Connected Futures III grant: AI-based VR for emotional training for autism

2017 | Winner Best Presentation: NYC Verizon Open Design Jam project on dating with AI

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

2015 | 3rd Skin performance exhibition: "Paint Your Teeth" at Tokyo Golden Egg

2014 | 12th 1_Wall Gallery exhibition: "ダンス目なし" at Guardian Garden Ginza

2009 | A&E Editor, UCLA Pacific Ties magazine, rep speaker at Campus Progress conference

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INTERESTS

3D fabrication
interactive installation
affective computing
statistical learning
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 observe and build interactions amongst humans and devices that allow for empathetic communication, from the multidisciplinary perspectives of integrative 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 disregards the human point of view entirely and attempts to make efficient algorithms. My aim is to instead, create intelligences embedded in intentional networks that make devices relatable to humans, so that our world can talk with us and we can communicate deeply with others and with ourselves.

CURRENT WORK

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

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

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. We also use AI-reinforced VR environments to train those with emotional deficits.

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

As the world becomes 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 have been implemented in Processing.

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

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

