

RAY L C

neuro . tech . art

PROFILE

creative technology and interactive art inspired and supported by multidisciplinary understanding of human behavior.



EXHIBITION / AWARDS

- 2018 ["FLORA"](#) network intelligence. Java Studios NYC, curator J. Crouse.
- 2018 ["Artistic Intelligence"](#) exhibition. [ISCMA](#) City University of Hong Kong.
- 2018 ["gARment"](#) fashion experience. NYC Media Lab '18, Justin Hendrix.
- 2018 [Adobe Design Achievement award](#).
- 2018 [Microsoft Imagine Cup finalist](#). VRbal: VR training for speech therapy.
- 2017 ["Secret Lives of Machines"](#) exhibition. Major Major Dimension show, Parsons.
- 2017 [Best Presentation award](#). Serendicity: Verizon AI Design Jam.
- 2016 [Falling Walls speaker](#). On the mystery of creation, PTSD.
- 2015 ["3rd Skin"](#) fashion performance. Tokyo Golden Egg, curator V. Ruijters.
- 2014 ["ダンス目なし"](#) photo exhibit. 12th 1_Wall show, curator R. Takano.
- 2014 ["Kapayaan"](#) philippines before haiyan. Bohol tourism office, curator Cabarrus.
- 2013 ["Species Descent"](#) mixed media. Kiyoshi Saito Museum, curator Koreda.
- 2009 [Campus Progress intro speaker](#). For Speaker of the House Nancy Pelosi.

CONTACT

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EDUCATION

- 2017 - 2018 | Parsons School of Design
Design Technology and Fine Arts MFA
- 2013 - 2017 | Tokyo MODE Gakuen (東京モード学園)
Fashion Design and Technology, MPS 2017
- 2000 - 2003 | University of California, Berkeley
Electrical Engineering and Computer Sciences, BS 2003

RESEARCH / DESIGN

- LOOMIA CREATOR LAB | 2017 - 2018
[Design](#): smart textile clothing for gesture-based 3D dance environ interaction.
- WEILL CORNELL MEDICAL SCHOOL | 2017 - 2018
[Research](#): wireless IR system for cortex-wide imaging behavior (Connor Liston lab).
- PARSONS SCHOOL OF DESIGN | 2017 - 2018
[Design](#): 3D poetry installation (Jess Irish), smart objects shy lamp (Carla Diana).
- RIKEN BRAIN SCIENCE INSTITUTE | 2013 - 2016
[Research](#): rewards are necessary to extinguish PTSD stress (Josh Johansen lab).
- UNIVERSITY OF CALIFORNIA LOS ANGELES | 2007 - 2012
[Research](#): modeling inhibitory movement circuits in cerebellum (Tom Otis lab).
- PALO ALTO RESEARCH CENTER | 2003 - 2005
[Research](#): particle filter for predicting human motion in clutter (David Fleet lab).
- UC BERKLEY GROUP FOR USER INTERFACE RESEARCH | 2002 - 2005
[Design](#): gesture-recognition post-it wall interface in web design (James Landay).

GRANTS / RESIDENCY

- 2019 [NYSCI New York Hall of Science designer in residence](#): AI edu at Queens Museum.
- 2018 [Brooklyn Fashion Design Accelerator residency](#): Tek Tiles smart textiles design.
- 2018 [Yahoo-Verizon Sports-Media-Tech startup grant](#): 5G stadium app for AR views.
- 2018 [Verizon Connected Futures III grant](#): AI-based VR for emotional training for autism.
- 2015 [JSPS Kakenhi Wakate B grant-in-aid](#) (科研費若手) for young scientists 25871125.
- 2013 [1_Wall at Guardian Garden residency](#): communication of dance "without eyes."
- 2012 [BankArt Studio Yokohama residency](#): mirroring human interaction using wearables.
- 2011 [NSF STEM DIGSSS training grant](#): computational neuro Suzhou Cold Spring Harbor.
- 2009 [NIH Neural Microcircuits grant](#): voltage sensitive dyes for circuit dissection UCLA.

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MEDIA

mixed media sculpture
interactive installation
affective computing
data visualization
fashion technology
nonlinear narratives



I AM NOT

just an artist, nor just a scientist, nor just a designer, nor just an engineer, despite working in each as my career. I am at the junction of human understanding, technology, and creative practice. I create sculptural works and experiences amongst humans and devices that enable empathetic communication, from the multidisciplinary perspectives of neuroscience, installation art, design, and storytelling.

CURRENT TOPIC

I create human-machine environments with embedded intelligence to allow our world to talk to us, so we can empathize deeply with others and with ourselves.

CURRENT WORK

We are always talking about ourselves, thinking about ourselves, taking pictures of ourselves. Using EEG technology to illustrate our obsession about ourselves, I constructed a two-way mirror based on the Alter Ego installation but made it interactive based on attention signals from NeuroSky headsets. The more we talk and think about ourselves the more we see ourselves, and others see us.

[\[Look at Me, Think of Me\]](#)

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, trusty, nagging, attention-craving, occasionally angry, and mildly jealous. A harmonious future involves machines that are part of human ecology instead of opposing it.

[\[Secret Lives of Machines\]](#)

Machine Learning (ML) has been employed to extend human abilities in image and speech processing. Instead of using ML for data mining, I instead take ML agents part of human ecosystems, applying ML to unexpected forms of interactions that subvert what we think machines ought to do, creating situations where ML goes beyond human expectation of what machine intelligence should mean.

[\[AI: Artistic Intelligence\]](#)

Fashion shows of the future will be more than about clothing, but rather interactive experiences that animate clothing, project sentiment, and narrate 4D stories. Working with fashion designers and audiences, we created an AR and projected experience that narrates the creation and destruction of the universe in a crinoline dress.

[\[gARment fashion\]](#)

