R A Y 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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portfolio | rayLC.org
photography | facebook.com/rayLCphoto

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 scupture
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 Moritz Wehrmann's 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]