Raphael Arar

Email
me@rarar.com

Portfolio
http://rarar.com

Profile

Award-winning designer, researcher and artist with a passion for collaboratively bending, twisting and pushing the capabilities of technology through user-centered design and creative experimentation

Experience

Principal Designer; Khan Academy; Mountain View, CA – 2018–Present
Leading the end-to-end design effort of Khan Academy's first product, an enterprise platform for districts to augment K–12 teachers in their efforts to approach highly personalized pedagogical practices in the classroom; spearheading the formalization of design processes and speculative design practices

Designer & Researcher; IBM Research; San Jose, CA – 2016–2018
Pioneering design-driven processes and leading UI/UX, data visualization and tangible user interface design for R&D projects covering emerging technologies; research interests aligned to artificial intelligence-driven design (including ethics), speculative design and arts-based research

Adjunct Faculty; San Jose State University; San Jose, CA – 2016–Present
Lecturer and MFA/BFA thesis advisor for SJSU's Digital Media Art program; teaching courses and workshops in motion graphics, software art and design

Adjunct Faculty; University of Southern California; Los Angeles, CA – 2014–2016
Lecturer in USC's Media Art + Practice Division and taught first-of-a-kind, self-authored course on bridging user experience fundamentals with critical theory

User Experience Design Lead; IBM; Cupertino, CA – 2014–2016
Created an accelerated design thinking methodology to scale the design and production of over 100 enterprise iOS/watchOS applications as part of the Apple+IBM partnership; facilitated design workshops with Fortune 100 clients; led and oversaw the UI/UX effort of teams globally

Lead Creative Designer; Kadenze; Santa Clarita, CA – 2013–2014
Crafted the identity and design language, managed a team of designers and instilled design processes for an arts-based EdTech startup

Designer (Contract); Google, Inc. (Agency Team); Venice, CA – 2012–2013

Designed and implemented an internal data-driven web app to manage creative assets

Design Technologist (Contract); Smithsonian Institute; Boston, MA – 2012–2013

Designed and built the web-based exhibits *Stories From Main Street* and *Stories of World Heritage*

Senior Creative Technologist; Hill Holliday; Boston, MA – 2011–2012

Led creative development of immersive ad campaigns for Dunkin' Donuts, Liberty Mutual and more

Interaction Designer; IBM iX; Cambridge, MA – 2009–2011

Founding member of Accelerated Visioning group—the first rapid prototyping service design group in the consulting division of IBM; led interaction design for award-winning B2B and B2C engagements

Interactive Designer & Developer; Modernista!; Boston, MA – 2009

Collaboratively devised bleeding-edge digital ad campaigns involving motion graphics and gaming

Interactive Designer & Developer; Paid Inc; Boston, MA – 2007–2008

Spearheaded data-driven web experiences for artists including Aerosmith, Run-DMC and others

Education   California Institute of the Arts; Valencia, California – MFA in Integrated Media, 2014
                   Boston University; Boston, Massachusetts – BA in Economics, BA in Music, 2009

Recognition

2018   TED Talk of the Day (April 2, 2018)
                   TED.com

                   Elected Member, Board of Directors
                   Leonardo/ISAST (International Society for the Arts, Sciences and Technology), MIT Press

2017	Forbes 30 Under 30 Awardee, Enterprise Technology

IBM Academy of Technology, A-Level Accomplishment
IBM Travel Manager

2016   C3 (Creative Community Committee), Elected Member, Santa Cruz Museum of Art & History

IBM First Patent Filing Award
Cognitive UX

2015   C3 (Creative Community Committee), Elected Member, Santa Cruz Museum of Art & History

2013   MITX Visionary Award
OPENPediatrics

Webby Award
Liberty Mutual Responsibility Project

National Science Foundation Grant Researcher (California Institute of the Arts)
Physical Computing

2012   National Science Foundation Grant Researcher (California Institute of the Arts)
Computer Science

Communication Arts Webpick of the Day
John F. Kennedy Presidential Library & Museum

Dope Awards, 1st Place Web Winner
John F. Kennedy Presidential Library & Museum

2010   IBM Service Excellence Award

2009   Webby Award Nominee
Modernista!

Patents	Providing force input to an application (pending)
	US20180239481A1

Stabilizing consumer energy demand (pending)
US20180323643A1

Context aware user interface (pending)
US20180113586A1

Books	

2019	Conversational UX Design: A Practitioner's Guide *forthcoming*
	Robert J. Moore, Raphael Arar. ACM Press. 2019.

2018	Studies in Conversational UX Design
	Robert J. Moore, Margaret H. Szymanski, Raphael Arar and Guang-Jie Ren. Springer International Publishing. 2018.

Publications

2018	PD Manifesto for AI Futures
	Daria Loi, Thomas Lodato, Christine T. Wolf, Raphael Arar, Jeanette Blomberg. 2018. PD Manifesto for AI Futures. In Proceedings of the 15th Participatory Design Conference (PDC). ACM, New York, NY, USA. DOI: https://doi.org/10.1145/3210604.3210614

Applying User-Centered Design to Business Modeling: CBM.next as a Case Study
Raphael Arar, Guang-Jie Ren, Shun Jiang, Valeria Becker, Lei Huang, Eric Young Liu. 2018. Applying User-Centered Design to Business Modeling: CBM.next as a Case Study. In Proceedings of the 2018 IEEE 20th Conference on Business Informatics (CBI). IEEE, New York, NY, USA. DOI: https://doi.org/10.1109/CBI.2018.10065

Using Energy Storage to Modify the Shape of Internally Generated Demand to Fit a Prescribed Shape for Externally Presented Demand
Ray Strong, Shubhi Asthana, Eric Butler, Kevin Roche, Raphael Arar, Cheryl Kieliszewski, Pawan Chowdhary, Sandeep Gopisetty. 2018. Using Energy Storage to Modify the Shape of Internally Generated Demand to Fit a Prescribed Shape for Externally Presented Demand. In

Proceedings of the 2018 IEEE International Conference on Services Computing (SCC). IEEE, New York, NY, USA. DOI: https://doi.org/10.1109/SCC.2018.00046

2017   Wayfinding
Raphael Arar. 2017. Wayfinding. In Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '17). ACM, New York, NY, USA 1378-1381. DOI: https://doi.org/10.1145/3027063.3052543

Early Future Technology: Using Artificial Intelligence to Manage Design-Driven Intellectual Property
Raphael Arar, Ray Strong. 2017. Early Future Technology: Using Artificial Intelligence to Manage Design-Driven Intellectual Property. In Proceedings of the Portland International Conference on Management of Engineering and Technology (PICMET). IEEE, New York, NY, USA. DOI: https://doi.org/10.23919/PICMET.2017.8125332

Artificial Intelligence: Ethics, Innovation and Integration with Enterprise Practices
Raphael Arar, Jeanette Blomberg. 2017. Artificial Intelligence: Ethics, Innovation and Integration with Enterprise Practices. IBM Internal White Paper. San Jose, CA.

Conversational UX Design
Robert J. Moore, Raphael Arar, Guang-Jie Ren, and Margaret H. Szymanski. 2017. Conversational UX Design. In Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '17). ACM, New York, NY, USA, 492-497. DOI: https://doi.org/10.1145/3027063.3027077

2016   Emerging User Experience Design for Industry Solutions
Raphael Arar. 2016. Emerging User Experience Design for Industry Solutions. IBM Internal White Paper. San Jose, CA.

2014   (+/-) Pendulum: Location in the Information Age
Raphael Arar. 2014. (+/-) Pendulum: Location in the Information Age . In Proceedings of the of the 20th International Symposium on Electronic Art (ISEA 2014). Dubai, UAE.

Participatory Data-driven Art Objects: Vessels for Kinetic Information

Raphael Arar. 2014. Participatory Data-driven Art Objects: Vessels for Kinetic Information. In Proceedings of the Conference on Computation, Communication, Aesthetics and X (xCoAx 2014). Porto, Portugal.

Anatomical Analogies: the Evolution of Harmony and Noise in relation to the Self and Society

Raphael Arar. 2014. Anatomical Analogies: the Evolution of Harmony and Noise in relation to the Self and Society. California Institute of the Arts Master of Fine Arts Thesis. Valencia, California.

2013   A History of Sequencers: Interfaces for Organizing Pattern-Based Music

Raphael Arar, Ajay Kapur. 2013. A History of Sequencers: Interfaces for Organizing Pattern-Based Music. In Proceedings of the the Stockholm Music Acoustics Conference and Sound and Music Computing Conference (SMAC/SMC-13). Stockholm, Sweden.

Invited Talks

2019   An aesthetic lens to machine intelligence *forthcoming*

Keynote speaker for the Oscar Polio Forum. Pescara, Italy. March 7, 2019.

2018   Interactions

Keynote speaker for a Marketing Town Hall to IBM's Chief Marketing Officer. San Francisco, CA. August 13, 2018.

The sight reminds me of our stupid fights. I miss them so much! Nostalgia and other things AI can't replace

Leonardo/ISAST Panel Discussion for CODAME ART+TECH Festival at The Midway. San Francisco, CA. June 6, 2018.

2017   Why Artificial Intelligence Research Needs Art

Invited talk for TED@IBM at SF Jazz Center. San Francisco, CA. December 6, 2017.

Exploring the Human-Machine Feedback Loop Through Art

Invited talk for Leonardo Art Science Evening Rendezvous (LASER) at San Jose State University. San Jose, CA. November 9, 2017.

The Evolution of the Moving Image: Exploring the Role of Film Schools in the Age of Extended Reality and Immersive Media
Panel discussion with Eric Darnell (Pixar) and Karen Dufilho (Google) moderated by Leighton Pierce (CalArts Film School Dean) at Draper University. San Mateo, CA. November 5, 2017.

How Art Shapes User Experience
Invited talk at the Computer History Museum. Mountain View, CA. October 6, 2017.

WORKSHOP#2: What Now? The world Post-Automation…
Panel discussion with Jim Spohrer (IBM), Ron Poznansky (IBM) and Phil Balagtas (McKinsey) as part of the Speculative Futures/PRIMER Conference Series hosted at IBM Studios. San Francisco, CA. July 6, 2017.

The Intersection of Aesthetic Practices and Bleeding-edge Design
Invited talk at IBM Watson West as part of the 50th Anniversary of the Turing Award. San Francisco, CA. June 22, 2017.

Conversational User Experience Design
Workshop lead at ACM CHI 2017 at the Colorado Convention Center. Denver, CO. May 6, 2017.

Art/Science and the Art of Illusion
Invited artist talk at the El Camino College Planetarium. Torrance, CA. April 29, 2017.

Conversational UI Best Practices
Invited talk as part of the LAUNCH Festival at the Palace of Fine Arts. San Francisco, CA. April 6, 2017.

Applying Science to Conversational UX Design
Invited talk with Robert J. Moore for SXSW 2017 at JW Marriott Ballroom. Austin, TX. March 13, 2017.

Cultivating Cognitive Experiences
Invited talk as part of Nerd Nite Silicon Valley at The Tech Museum. San Jose, CA. February 2, 2017.

2016	Design for the Aging Population: UX Considerations
	Invited talk for the IBM Academy of Technology Outthink Virtual Conference. May 12, 2016.
	Trends and Impressions from SXSW
	Invited talk for IBM Research Staff at Almaden Research Center. San Jose, CA. May 26, 2016.
	Intro to Arduino: Output
	Workshop lead at Idea Fab Labs. Santa Cruz, CA. May 26, 2016.
2015	DIY Projection Mapping
	Invited artist talk at the El Camino College Planetarium. Torrance, CA. October 10, 2015.
	Designing for Remote Collaboration
	Invited talk at the School of Cinematic Arts at the University of Southern California. Los Angeles, CA. April 14, 2015.
	Using Keynote to Prototype Interactions
	Workshop lead as part of the Apple+IBM Partnership. Cupertino, CA. April 3, 2015.
	Video Projection Mapping: Aesthetic Considerations
	Workshop lead at the California Institute of the Arts. Valencia, CA. April 3, 2015.
2014	(+/-) Pendulum
	Invited artist talk at Zayed University as part of ISEA. Dubai, UAE. November 8, 2014.
	PhoneGap 101: Utilizing Web Technologies for Mobile Applications
	Workshop lead at Machine Project Gallery. Los Angeles, CA. June 10 & 12, 2014.
	Web Fundamentals for Mobile Design
	Workshop lead at Machine Project Gallery. Los Angeles, CA. June 3 & 5, 2014.
	Design Thinking for Interactive Literary Art & Digital Storytelling
	Invited lecture at Art Center College of Design. Pasadena, CA. May 15, 2014.
	Artist Portfolio Best Practices
	Invited lecture at the California Institute of the Arts. Valencia, CA. May 3, 2014.

Intro to Arduino

Workshop lead at Machine Project Gallery. Los Angeles, CA. February 9, 2014.

Historical & Contemporary Precedents for Media Arts & Design

MFA Thesis Defense at the California Institute of the Arts. Valencia, CA. January 31, 2014.

2013   Advanced Processing: Programming Generative Art

Workshop lead at Machine Project Gallery. Los Angeles, CA. December 10 & 11, 2013.

Intro to Processing: Programming Fundamentals

Workshop lead at Machine Project Gallery. Los Angeles, CA. December 3 & 4, 2013.

Musical Soldering

Workshop lead at 1450 Ocean Gallery. Santa Monica, CA. October 12, 2013.

Light-sensitive Oscillators: Learn to Make Sound Circuits

Workshop lead at Machine Project Gallery. Santa Monica, CA. June 16, 2013.

2012   Amalgamation & Displacement: Art that Spans Time & Media

Invited artist talk at the University of Nevada, Reno as part of Prospectives International Festival of Digital Art. Reno, NV. October 8, 2012.

2011   Interaction Design for Digital Experiences

Invited talk at the IBM Center for Social Software. Cambridge, MA. September 3, 2011.

Selected Press

2018   At IBM, Researchers Are Working To Make Robots Engaging Conversationalists

Inc. Magazine

https://www.inc.com/greg-satell/at-ibm-researchers-are-working-to-make-robots-engaging-conversationalists.html?cid=sf01001

Conversational UX design: What it is and who's paving the way

TechTarget

https://searchcio.techtarget.com/feature/Conversational-UX-design-What-it-is-and-whos-paving-the-way

How to make AI agents better conversationalists: Context is key
TechTarget
https://searchcio.techtarget.com/feature/How-to-make-AI-agents-better-conversationalists-Context-is-key

Tackling the 'ask me anything' challenge of a conversational interface
TechTarget
https://searchcio.techtarget.com/feature/Tackling-the-ask-me-anything-challenge-of-a-conversational-interface

2017   30 Under 30
Forbes Magazine
https://www.forbes.com/sites/kathleenchaykowski/2017/01/03/30-under-30-2017-the-young-innovators-transforming-enterprise-tech/#322b4769335b

This IBM researcher integrates science, math and art in his work
Silicon Valley Business Journal
https://www.bizjournals.com/sanjose/news/2017/02/09/this-ibm-researcher-integrates-science-math-and.html

Why Today's Designers Are Different
Inc. Magazine
https://www.inc.com/yazin-akkawi/how-technology-has-given-design-a-new-meaning.html

Why not? Pushing and prodding the possible, at TED@IBM
TED Institute
https://blog.ted.com/why-not-pushing-and-prodding-the-possible-at-tedibm/
10 ways that IT pros and developers can keep their tech skills up to date
TechRepublic
https://www.techrepublic.com/article/10-ways-that-it-pros-and-developers-can-keep-their-tech-skills-up-to-date/

Music, Integrated Media Alumnus Raphael Arar Makes Forbes' '30 Under 30' List
24700: News from California Institute of the Arts
http://blog.calarts.edu/2017/01/05/music-and-integrated-media-alumnus-raphael-arar-makes-forbes-30-under-30-list/

Five Alums, BU Academy Graduate on Forbes "30 Under 30" Lists
BU Today
https://www.bu.edu/today/2017/alums-forbes-30-under-30/

Top 30 Under 30 in Cloud
Computer Business Review
https://www.cbronline.com/news/cloud/top-30-under-30-in-cloud/

2016   Thinking Design in the Lab
IBM.com
https://www.ibm.com/blogs/research/2016/08/design-thinking-ibm-research/

The Imaginary 20th Century
Entropy
https://entropymag.org/the-imaginary-20th-century/

2014   Machine Project Takes Over the Gamble House
KCET
https://www.kcet.org/shows/artbound/machine-project-takes-over-the-gamble-house

AxS Festival: Sights, Sounds, and Science Collide in Pasadena
KCET
https://www.kcet.org/shows/artbound/axs-festival-sights-sounds-and-science-collide-in-pasadena

Jewish art culture: Movin' on up to the East side
Jewish Journal
http://jewishjournal.com/culture/arts/129325/

2013   Forty Artists Aboard a Mobile Art Lab Want to Collaborate With You
GOOD
https://www.good.is/articles/forty-artists-aboard-a-mobile-art-lab-want-to-collaborate-with-you

Catch the Bus

Rise Art

https://www.riseart.com/article/2013-06-03-catch-the-bus

Digital art exhibit pioneering new movement

ninemsn.com

Aluminum Heartbeat

CNET

https://www.cnet.com/uk/pictures/future-tech-expo-sci-fi-saxes-3d-printed-human-hearts-pictures/7/

2012   Preview: Cyberarts

DigBoston

http://collisioncollective.org/show/collision-18

GAME PLAY Artist Interview: Raphael Arar ("Synth-a-Sketch")

B(RICK)LOG

http://bricktheater.blogspot.com/2012/07/game-play-artist-interview-raphael-arar.html

WHIRL: Build It Up to Boogie Down

DigBoston

Exhibitions

2019   Crash Override 04 – The Lucky Horseshoe/Resident Advisor

Sound art performance with custom electronics. San Francisco, CA.

2018   A Life/Art/Science/Tech (LAST) Festival presented by Stanford University - SLAC National Accelerator Laboratory

Nostalgia. Group exhibition. Menlo Park, California.

2017   International Symposium on Electronic Art - Centro Cultural Universitario Rogelio Salmona

Wayfinding. Group exhibition. Manizales, Colombia.

CHI 2017 - Colorado Convention Center

Wayfinding. Group exhibition. Denver, CO.

Art of Science/Science of Art - El Camino College Planetarium

Art of Science/Science of Art. Solo exhibition. Collaboration with Chris Weisbart. Torrance, CA.

2016   30 years of research - Almaden Research Center (IBM Research)

Wayfinding. Group exhibition. San Jose, CA.

Changemakers - Santa Cruz Museum of Art & History

Wayfinding. Group exhibition. Santa Cruz, CA.

Old ways won't open new doors - Doc's Lab

Wayfinding. Group exhibition. San Francisco, CA.

Crashing into walls we've built - The Night Light

Wayfinding. Group exhibition. Oakland, CA.

Sleep is not for those who dream - Lock & Key

Wayfinding. Group exhibition. Los Angeles, CA.

2015   The Imaginary 20th Century - ZKM Centre for Art & Media

Sound art for an archival art platform. Group exhibition. Karlsruhe, Germany.

Forbidden Planet Night - El Camino College Planetarium

Forbidden Pixel. Solo exhibition. Collaboration with Chris Weisbart. Torrance, CA.

2014   The Entrance - Machine Inspired Art Gallery

Echo echo bot. Solo exhibition. Los Angeles, CA.

International Symposium on Electronic Art - Zayed University

(+/-) Pendulum. Group exhibition. Dubai, UAE.

The Machine Project Field Guide to the Gamble House - The Gamble House Museum

Projected shadows. Group exhibition. Collaboration with Chris Weisbart. Pasadena, CA.

Gemini Heart - Center for Integrated Media

Gemini Heart. Solo exhibition. California Institute of the Arts. Valencia, CA.

cutLog - The Clemente
Horizon. Group exhibition. New York, NY.

Improvised Sound Ping Pong Tournament - Machine Project
Curation and live sound art performance. Group exhibition. Los Angeles, CA.

Pre-Glo - Centre for the Living Arts
Untitled Video Collage. Group exhibition. Mobile, AL.

2013   Chance Meeting in a Storefront - Machine Project
Ping pong sound installation. Solo exhibition. Los Angeles, CA.

Perform Chinatown - KesselsKramer Gallery
SYNTH-A-SKETCH. Solo exhibition. Los Angeles, CA.

Dimanche Rouge - Espoo Museum of Modern Art
BITPHONE. Group exhibition. Espoo, Finland.

Dublab 14th Anniversary Celebration - Maker City LA
Experimental Raver Table Tennis. Group exhibition. Los Angeles, CA.

NOW13 - Dark Horse Experiment
Parasitke. Group exhibition. Melbourne, Australia.

Engineered Art - CalTech Community Art Gallery
Metal Hearts. Group exhibition. Pasadena, CA.

Ambiguities & Illusions - Spaces Gallery
Attic. Group exhibition. Hardwick, MA.

2012   COLLISION18:present - Cyberarts Gallery
Pathways. Group exhibition. Boston, MA.

SIMULTAN Festival - Facultatea De Arte / Mansarda
Finding Comfort in Claustrophobia. Group exhibition. Timisoara, Romania.

Ignition 5.0 - The Fuse Factory

SYNTH-A-SKETCH. Group exhibition. Columbus, OH.

SQUARE - Teatro San Giorgio

Pathways. Group exhibition. Udine, Italy.

iDEAS_12 - New World School of the Arts

Attic. Group exhibition. Miami, FL.

Athens Video Art Festival - Ayias Irinis Square

Finding Comfort in Claustrophobia. Group exhibition. Athens, Greece.

Together Festival - MACHINE

SYNTH-A-SKETCH. Group exhibition. Boston, MA.

BEAM Festival - Beldam Gallery

SYNTH-A-SKETCH. Group exhibition. London, United Kingdom.

2011   GamePlay - The Brick Theater

SYNTH-A-SKETCH. Solo exhibition. Brooklyn, NY.

Skills   Design

User Experience Design, Interface Design (including mobile, web and software applications), Tangible Interaction Design (including physical computing), Information Design (including data visualization), Graphic Design, Rapid Prototyping, Information Architecture, Creative Direction, Art Direction, Digital Strategy, Branding, Usability Testing

Programming

Javascript (Node.js, React) , Python, Java, C++, C, HTML5, CSS3, MongoDB/CouchDB/Cloudant, Unix

Fabrication

Industrial Design, 3D Printing, Laser cutting, CNC Machining, Metalworking, Carpentry

Environments & Tools

Sketch, Adobe Creative Suite, Fusion 360, Atom/Sublime Text, Eclipse, Xcode, Rhinoceros, Final Cut Pro, Omnigraffle

Volunteer Work

Boston Lyric Opera
Website Design, Print Design

Cambridge Symphony Orchestra
Website Design, Identity Design