Raphael Arar

Email
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Portfolio
http://work.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

Senior Design Manager; Khan Academy; Mountain View, CA (Remote)– 2019–Present
Serving as manager and principal designer of the learning platform team focusing on the future of student experiences both in and out of classrooms; led the design of a new product feature that received an NPS > 95% and a microsite that drove a 2x increase in the number of active teachers and learners to the platform

Principal Designer; Khan Academy; Mountain View, CA – 2018–2019
Led the end-to-end design effort of Khan Academy's first paid enterprise classroom products for K-12 differentiated learning, MAP Accelerator & Khan for Districts; shipped work exceeded our 22% user activation targets

Designer & Researcher; IBM Research; San Jose, CA – 2016–2018
Pioneered design-driven processes and led UI/UX, data visualization and tangible user interface design for R&D projects spanning new ML/AI systems; filed 11 patents (3 granted) and published over a dozen papers on the intersection of design, art and ML/AI systems

Adjunct Faculty; San Jose State University; San Jose, CA – 2016–2019
Created courses for and taught MFA/BFA students in SJSU's Digital Media Art program; taught courses and workshops in critical theory, speculative design and art & technology

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 (Freelance); Google, Inc. (Agency Team); Venice, CA – 2012–2013
Designed and implemented an internal data-driven web app to manage creative assets

Design Technologist (Freelance); 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 Music, BA in Economics, 2009

Recognition

2020

Apple's App of the Day (January 22, 2020)
Khan Academy

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
	US20180239481A1
	Context aware user interface
	US20180113586A1
	Method and system for correcting speech-to-text auto-transcription using local context of talk
	US20200160866A1
	Managing consumer energy demand
	US20200006943A1
	Analyzing temporal classes in user feedback (pending)
	US20200372516A1
	Automated Assignment of Tasks Based on User Profile Data for Improved Efficiency (pending)
	US20200364646A1
	Minimizing Risk Using Machine Learning Techniques
	US20200372397A1
	Optimized transportation selection (pending)
	US20200372590A1
	Stabilizing consumer energy demand (pending)
	US20180323643A1
	Cognitive visual and ontological mapping of tabular data based on a distribution of a measure of interest (pending)
	US20200192928A1

Cognitive role-based policy assignment and user interface modification for mobile electronic devices (pending)
US20200059096A1

Suggesting a destination folder for a file to be saved (pending)
US20200174967A1

Method and system for displaying automated agent comprehension (pending)
US20200134021A1

Dynamic modification of placeholder text in conversational interfaces (pending)
US20200134017A1

Speech-to-text transcription with multiple languages (pending)
US20200098370A1

Books

| 2019 | Conversational UX Design: A Practitioner's Guide |
| | 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

2020	Food Carbon Footprint Index (FCFI)
	Raphael Arar, Olivia Arar. 2020. Food Carbon Footprint Index (FCFI).
	In Proceedings of the 16th Participatory Design Conference (PDC). ACM, New York, NY, USA.

2019   Co-designing AI Futures: Integrating AI Ethics, Social Computing, and Design

Daria Loi, Christine T Wolf, Jeanette L Blomberg, Raphael Arar, Margot Brereton. 2019. Co-designing AI Futures: Integrating AI Ethics, Social Computing, and Design. In Proceedings of the 2019 on Designing Interactive Systems Conference 2019. ACM, New York, NY, USA. DOI: https://doi.org/10.1145/3301019.3320000

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

Nostalgia: a human-machine transliteration

Raphael Arar. 2018. Nostalgia: a human-machine transliteration. In Proceedings of the 2018 IEE VisArts Conference. IEEE, New York, NY, USA.

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

2020	Understanding nuance and bias in emotional AI technologies through art
	Invited talk at Intel Labs Israel. December 9, 2020
	Deconstructing the attention economy through art
	Invited remote talk at the University of Nevada - Reno (UNR). Reno, NV. April 10, 2020.
	An aesthetic approach to untangling systems
	Invited talk at Rochester Institute of Technology (RIT). Rochester, NY. February 25, 2020.
2019	Designing for the classroom & beyond
	Invited talk for SF Design Week. San Francisco, CA. June 27, 2019.
	5 things designers can learn from teachers
	Invited talk for Layers: a Conference about Design & Technology. San Jose, CA. June 5, 2019.
	An aesthetic lens to machine intelligence
	Keynote speaker for the Oscar Pomilio 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

2019   SF Design Week: Designing for classrooms and beyond
Clever
https://blog.clever.com/2019/10/sf-design-week-designing-for-classrooms-and-beyond/

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 / Art

2020   Prosthetic Memories, Writing Machines - Noema Magazine
Noema AI Poet. <u>Commissioned net art accompanying an essay on AI</u>.

Emerge Festival - Arizona State University, Mesa Arts Center
Food Carbon Footprint Index. Group exhibition. Mesa, AZ.

The Holland Project - University of Nevada, Reno
Motor Studies. Solo exhibition. Reno, NV.

Participatory Design Conference (PDC) - Manizales, Colombia / Remote
Food Carbon Footprint Index (FCFI). Group exhibition. Manizales, Colombia / Remote.

2019   Dreaming in silicon, a design fiction workshop - Backyard San Jose/WeWork
Participant-driven design fiction workshop on the future of Silicon Valley. San Jose, CA.

Crash Override 04 – The Lucky Horseshoe/Resident Advisor
Sound art performance with custom electronics. San Francisco, CA.

Human Design: Shaping ideas - Aurum/Ideas Factory
Fail Engine. Group exhibition. Pescara, Italy.

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), Discursive/Speculative/Critical Design, 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	Leonardo / The International Society for the Arts, Sciences and Technology
	Member of the Governing Board
	Yoga for All Movement
	Identity Design, Website Design, Print Design
	Boston Lyric Opera
	Website Design, Print Design
	Cambridge Symphony Orchestra
	Website Design, Identity Design