

# Andrew Quitmeyer, PhD

Interactive Wilderness Design

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## Work

### *Digital Naturalism Laboratories*

2019 -  
Present

Director, Co-Founder

Dinalab culminates the research I led as a PhD Student and Professor. We set up our own institution to help develop and evaluate technology in an intimate proximity to nature. Dinalab is a solar-powered field-station makerspace surrounded by tropical jungle for creating rapid prototypes between interaction design and field biology. It functions as a lab and residency for visiting artists, scientists, and technologists from around the world.

### *National University of Singapore*

2017 -  
2019

Assistant Professor of Interactive Media

Exploring Digital Naturalism's research at the professional, academic tenure-track level. Teaching interactive art and design concerned with natural systems, our students developed projects installed at the Singapore Zoo, and Art Science Museum.

### *Discovery Networks - "Hacking the Wild"*

2015 -  
2017

Television Host and Designer

Starred in an international TV show based on my PhD Research in "mobile making" concepts. The show syndicated to many networks on 6 continents under names such as "Sin Cobertura" (Latin America) and "Dijital Kurtuluş" (Turkey).

## Education

### *Georgia Institute of Technology*

2009 -  
2015

Ph.D. Digital Media - "Digital Naturalism"  
M.S. Digital Media (Best Thesis Award)

My "Digital Naturalism" research investigates physical computing for biological field research. This independent research developed techniques and tools with scientists in rainforest expeditions to help engage animals and environments in novel ways.

### *University of Illinois Urbana-Champaign*

2004 -  
2008

B.S. Industrial Engineering [Highest Honors]  
B.A. Film Theory and Production [Campus Honors]

Studied engineering, problem solving, experimental media, and interactive performance.

## Research

### Selected Publications

- Quitmeyer, Kelly. *Proceedings of the Second Digital Naturalism Conference*. (2020)

- Quitmeyer, Liem, Huber. "Multidisciplinary Column: an interview with Andrew Quitmeyer." *ACM SIGMultimedia Records 10.3* (2018)
- Quitmeyer, Khan. *Proceedings of the First Digital Naturalism Conference*. (2018)
  - Quitmeyer. "Hiking Hacks: Workshop Model for Exploring Wilderness Interaction Design." *Proceedings of the 2018 Designing Interactive Systems Conference*. (2018)
  - Schwartzman, Quitmeyer. "Replantment" *Cultural Programs of the National Academy of Sciences, "Issues..."* (2018)
  - Quitmeyer. "Digital Naturalist Design Guidelines," *Proceedings of the 11th ACM conference on Creativity and cognition*. ACM. (2017)
  - Quitmeyer. "The First Hiking Hacks: Exploring Mobile Making for Digital Naturalism," *Proceedings of the 11th ACM conference on Creativity and Cognition*. ACM. (2017)
  - Quitmeyer, Quitmeyer. "Yarncraft and Cognition: an Art Installation," *Proceedings of the 11th ACM conference on Creativity and cognition*. ACM. (2017)
  - Quitmeyer, Perner-Wilson. "Wearable Studio Practice." *Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing -Wear and Tear Workshop*. ACM, (2015)
  - Quitmeyer, Durkin, Clifton. "Ruggedization of Vibration Motors." *Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing -Wear and Tear Workshop*. ACM, (2015)
  - Quitmeyer. "Digital Naturalism: Designing Holistic Ethological Interaction." *CHI'14 Extended Abstracts on Human Factors in Computing Systems*. (2014)
  - Nitsche, Quitmeyer, et al. "Teaching Digital Craft." *alt.chi - CHI '14 Human Factors in Computing Systems*. (2014)
  - Quitmeyer, Nitsche. "Mark Your Territory: Bridging Ownership between Real and Digital Spaces," *Cybernetics - Leonardo Electronic Almanac*. (2014)
  - Quitmeyer, Nitsche, Ansari. "Media in Performance – The Subway Project," *International Journal of Art and Technology (IJART)*. (2014)
  - Quitmeyer. "Digital Naturalism: Interspecies Performative Tool-Making for Embodied Science," *UbiComp - Doctoral School - Zurich*. (2013)
  - Quitmeyer, Ansari, Nitsche. "Subway: Activist Performance through Mediation," *ArtsIT: Milan, Italy*. (2013)
  - Mazalek, Nitsche, Chandrasekharan, Welsh, Clifton, Quitmeyer, Peer, Kirschner. "Recognizing Your Self in Virtual Avatars," *IJART*. (2013)
  - Quitmeyer, Nitsche. "Documatic: Participatory, Mobile Shooting Assistant, Pre-Editor, and Groundwork for Semi-Automatic Filmmaking," *European Interactive Television Conference*. (2012)
  - Yang, Quitmeyer, Hrolenok, et al. "Ant Hunt: Towards a Validated Model of Live Ant Hunting Behavior," *Florida Artificial Intelligence Research Society*. (2012)
  - Quitmeyer, Balch. "Waggle Dance," *AAAI Video Competition*. (2011)
  - Mazalek, Nitsche, et al. "I'm in the Game: Embodied Puppet Interface Improves Avatar Control," in: *Proceedings of the Fifth International Conference on Tangible, Embedded and Embodied Interaction TEI* (Jan 23-26 2011, Madeira, Portugal) New York: ACM, 2011, 129-136. (2011)
  - Mazalek, Nitsche, et al. "Recognizing Self in Puppet Controlled Virtual Avatars," in: *Fun and Games* (Sept 15-16, Leuven, BEL) New York, ACM, 66-73. (2010)

#### Exhibitions / Invited Talks

- Quitmeyer. "Digital Naturalism Laboratories," in invited panel at *MIT Biosummit*. (2018).
- Quitmeyer. "Eco-Funk Design Jam" Apple Event Headliner, *Apple Inc.* (2018)

- Quitmeyer. "Stereo Smelling" *Heroes with a Tail* (Dutch educational TV show). (2018)
- Quitmeyer. "Digital Naturalism and Experimental Outreach" *Asia-Pacific Science Communication Conference*. (2018)
  - Quitmeyer. "Co-Making in the City." Highlighted talk *Shenzhen Maker Faire*. (2018)
  - Quitmeyer. "Wilderness Making." Africa Open Science Hardware Conference. (2018)
  - Quitmeyer. "Hacking the Wild." *Hackaday Hackchat* (2018)
  - Quitmeyer, Schwartzman. "Replantment," (*Installation*) *See Yourself E(x)ist*. Pratt Manhattan Gallery (2017-2018).
  - Quitmeyer. "Digital Naturalism." *National Academy of Sciences DASER Talk*. (2018).
  - Quitmeyer. "Panel on Food Waste," Singapore Eco-Film Festival. (2017)
  - Quitmeyer. "Digitalni naturalizem (Invited Instructor)," Pifcamp, Slovenia. (2017)
  - Quitmeyer. "Special Activities Training Battalion," US Special Forces, Ft. Bragg (2017)
  - Quitmeyer. "Wild Card," *Future Innovators Summit, Ars Electronica*. (2016)
  - Quitmeyer et al. "Comingle's Mod," *Objects of Desire: A Showcase of Modern Erotic Products and the Creative Minds Behind Them*. Rita Orrell. Schiffer Publishing. (2016)
  - Perner-Wilson, Quitmeyer. "Wearable Studio Practice," *Ars Electronica*. (2015)
  - Quitmeyer. "Mobile Wilderness (Making and Doing)" *Society for Social Studies of Science*. (2015)
  - Quitmeyer. "Digital Naturalism." *San Diego Zoo Invited Talk* (2015)
  - Quitmeyer. "Modular, low-cost Arboreal Ant (*Azteca alfari*) Tracking Sensor Development in Panama." *Entomological Society of America*. (2014)
  - Quitmeyer, Clifton, Durkin. "Open Source Sex Toys," *Arse Elektronika*. (2014)
  - Quitmeyer. "Modular Ant Sensors," *Bambi Talk - Smithsonian Tropical Research Institute*. (2014)
  - Quitmeyer. "Jungle Fluids," *Slingshot Music, Tech, and Electronic Arts Festival*. Athens, Georgia. (2014)
  - Quitmeyer. "The Subway Project" *Artaud Forum - Brunel University*. (2013)
  - Quitmeyer, Nitsche. "Mark Your Territory: Bridging Ownership between Real and Digital Spaces," *Interactive Media Arts Conference* (2012)
  - Quitmeyer, Ansari, Nitsche. "Subway: Preview and Process," *Activist Technology Demo Day – Eyebeam*. (2012)
  - Quitmeyer. "Semi-Automatic Filmmaking with Mobile Devices," *MINA Mobile Creativity and Innovation Symposium*. (2011)

#### Workshops / Residencies / Expeditions

- Quitmeyer, Khan. The Digital Naturalism Conference - Koh Lon, Thailand. (2019)
- Quitmeyer, Candy. "Design Fiction Workshops." *NUS*. (2018)
- Quitmeyer, Zoran. "Design Fiction and Food Tech Workshop + Talks." *NUS*. (2018)
- Quitmeyer, Khan. The Digital Naturalism Conference - Koh Lon, Thailand. (2018)
- Quitmeyer. "Mobile Makerspace Design" *Gathering Open Science Hardware*. (2018)
- Quitmeyer, Perner-Wilson. "Wearable Studios and Extended Senses." Institute of Advanced Architecture, Catalonia. (2018)
- Quitmeyer, Candy. "Animal Enrichment Technology Workshops." *NUS - Singapore Zoo*. (2018)
- Quitmeyer. "Expert in Residence." *IDEO - Project Dharma*. (2017)
- Quitmeyer, Liem. "Creative Artefacts and Digital Technology: Enriching Urban Societies through Interactive Experiences." *Proceedings of the 11th ACM conference on Creativity and Cognition*. ACM. (2017)
- Quitmeyer. "Digital Nature Workshops," *ITP Camp, New York University* (2017)

- National Academies of Science Keck Futures Initiative Conference. (2016)
- *Zero1* and *US Embassy*. American Arts Ambassador for the Philippines. (2016)
- Quitmeyer, *Wearable Computing Center*. "Wearables in the Wild: US" (2015)
- Quitmeyer, Perner-Wilson, Cal Academy. "Hacking the Wild: Madagascar" (2015)
- Quitmeyer, *Smithsonian Tropical Research Institute*. "Hiking Hack Panama" (2014)
- *Signalfire*, "Wolf: Apache Wilderness," [Artists' Residency]. (2014)
- *Ntl. University of Singapore*. "Augmented Sensory Workshop", (2014)
- ASU, *Nanotechnology Winter School*. (2013)

#### Grants and Fundraising

- Quitmeyer "Wilderness Workshops: Digital Design and Prototyping with Nature." *National University of Singapore Grant* (2017-2020) - \$40K
- Quitmeyer, Perner-Wilson. "Wearable Studio Workshops Grant." (2018) - \$6K
- Santoro, Quitmeyer, Frost. "Small Wonder: Inside the World of Marine Microbes on the Smithsonian's Ocean Portal." *National Academy of Sciences*. (2017-2019) - \$75K
- Quitmeyer, Henz. "NUS Seafarers - Pilot Floating Makerspace" (Won NUS funding approval for a year of additional trips) *National University of Singapore*. (2017-2018)
- Georgia Tech: Legacy Award. (2013), Best Poster (2013), Foley Scholar. (2014), Presidential Fellowship (2011-2015), Full Fellowship. (2015) - ~\$60K

## Previous Work

### *US State Department - ZERO1*

2015-  
2016

United States Art Ambassador

Selected as the Art Ambassador to the Philippines. Teaming up with youth, underserved populations, and scientists to explore local crafts and ecosystems with new media art.

### *Comingle*

2013-  
2016

Founder / Designer

Founded a pioneering, Open-Source Sex Technology Company. Developing platforms for customizable user interactions. Lead the lawsuit against a historic sextech patent troll case.

### *Smithsonian Tropical Research Institute*

2013-  
2014

Smithsonian Fellow

Named a fellow in 2013, I taught cybiotic interaction design and digital biocrafting workshops to scientists living in the Panamanian Rainforest. We also held exploratory and educational outreach performances for research communication.

### *Multi-Agent Robotics and Systems Lab*

2010 -  
2013

Lead Software Designer/Documentarian

Designed and programmed biotracking software for scientific and artistic projects. NSF (0960618) and ONR (550740) grants for computer-vision biotracking. Also created animal-specific research design documentaries.

### *Stupid Fun Club*

2011

Animal Interaction Designer

Designed digital and physical toys at Sim-City Creator, Will Wright's, Berkeley think-tank.

# Volunteer

## *Concrete Jungle*

2009-  
2017

Volunteer

Help with technology and mediawork as well as farming and collecting fruit with this urban foraging group that supplies food for the homeless.

## *The Storytelling Studio - Ecuador / China*

2005-  
2009

Creator, Director, Educator

Founded children's workshops promoting media literacy and combatting child labor.

# Skills

- Working fluency in **Spanish, Mandarin Chinese, and French.**
- Field Experience: **Navigating, Manual Transmission Backcountry Driving, Zoological Collecting and Tagging, Vaccine Spectrum** (including Rabies).
- Versatile programming background: **C++, Java, Unity, OpenCV, Arduino, Processing, Android, PHP, HTML5, CSS3, Javascript, Python, Linux, QBasic.**
- Extensive training in physical/digital design and prototyping tools, particularly: **CAD, CNC, Laser Cutting, PCB Design, 3D Printing, Mould Making, Textiles.**
- Multimedia outreach and design production: Film, Animation, Books, VR, Creative Code, Web, Interactive Sculpture, Interactive Museum Exhibits.

# Honors

## Awards

- Finalist - Conservation X Prize "360 Camera Traps." (2019)
- Appointment to Advisory Board-Institute of Advanced Architecture Catalonia. (2018)
- Grand Prize-Entomological Society Film Award "Ant Plants: Azteca-Cecropia" (2017)
- Comingle: Prixx Arse (Arse Elektronika 2014), Best of Atlanta (Creative Loafing 2015)
- Smithsonian Tropical Research Institute Fellowship. (2013, 2014)
- Instructables Design Contests: numerous first and grand prizes. (2013-2015)
- Digital Atlanta Artist Award for Subway project. (2013)
- UIUC: Robert Byrd, Opal Meyers, and General Assembly full tuition scholarships.

## Features

- Work featured by The Discovery Channel, **Make Magazine, Fast Company, Scientific American, Cartoon Network, Wired UK, NPR, io9, Boingboing, IFC, Fernbank Museum**, and many additional outlets, museums, and exhibition centers.

*References available upon request*