

Hannah E. Wolfe

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Education

Doctor of Philosophy, University of California, Santa Barbara
Santa Barbara, California, 2012–present (expected June 2019)
PhD Thesis: *Non-Verbal Human Machine Communication from the Media Arts Perspective*
Media Arts and Technology
Advisor: JoAnn Kuchera-Morin
Committee: Marko Peljhan, Yon Visell

Master of Science, University of California, Santa Barbara
Santa Barbara, California, 2013–2017
Computer Science
Advisor: Tobias Hollerer

Master of Science, University of California, Santa Barbara
Santa Barbara, California, 2012–2016
Masters Thesis: *ROVER, the Reactive Observant Vacuous Emotive Robot*
Media Arts and Technology
Advisor: Marko Peljhan
Committee: JoAnn Kuchera-Morin, Matthew Turk

Bachelor of Arts, Bennington College
Bennington, Vermont, 2005–2009
Concentration: Visual Arts
Advisors: Robert Ransick, Andrew Spence, Sue Rees

Employment

Graduate Student Researcher, AlloSphere Research Group
University of California, Santa Barbara
Santa Barbara, California, March 2016–present
Designed and built interfaces for scientific data and simulation visualization in the AlloSphere, a three story immersive virtual reality environment. Managed software and operating systems installations and upgrades for the AlloSphere's 14 computer cluster which runs 26 projectors and 55 speakers.

Software Developer, Memory Emotion Thought Awareness Lab
University of California, Santa Barbara
Santa Barbara, California, March–June 2017
Wrote a Python script to automatically generate JavaScript questions for Qualtrics study questionnaire.

Mosher Foundation Fellow, AlloSphere Research Group
University of California, Santa Barbara
Santa Barbara, California, June 2014–June 2016
Mentored Dos Pueblos High School Engineering Academy (DPEA) seniors on their Senior Capstone Mechatronics Projects and taught workshops on UI/UX design, micro-controllers, and version control. Consulted on curricula for DPEA and the Santa Barbara High School Computer Science Academy (SBHS-CSA) to integrate art and computer science.

Graduate Student Researcher, AlloSphere Research Group
University of California, Santa Barbara
Santa Barbara, California, March–June 2014
Worked on an animation project simulating a medical device's effect on the blood stream. This project was implemented in Maya and After Effects.

Software Engineer/Business Analyst, SunEdison
San Francisco, California, January 2010–June 2012
Designed and implemented internal software tools for engineers to monitor and maintain hundreds of solar power plants. Implemented, maintained and quality assured automated financial and system monitoring reports for internal and external customers.

Teaching Experience

Teaching Associate, University of California, Santa Barbara
Santa Barbara, California, Summer 2017
Designed and taught a college level class "Data-Driven Research – Creative Problem Solving with Python," in which students learned how to apply machine learning techniques to large datasets.

Teaching Assistant, University of California, Santa Barbara
Santa Barbara, California, 2013–2014
Served as a teaching assistant for the graduate course "Art and Technology" (Media Arts and Technology) and the undergraduate courses "Digital Media Arts Strategies" (Art), "Contemporary Practices III Art Science and Technologies" (Art), "Physics Lab for Life Science" (Physics) and "Intro to Machine Shop" (Mechanical Engineering).

Instructor, iD Tech Programming Academy
University of California, Los Angeles, Summer 2014
Taught HTML5, CSS3, JavaScript, and PHP in the course "Web Programming," prepared lesson plans and ensured that all students met set curriculum goals.

Grader, University of California, Santa Barbara
Santa Barbara, California, 2013
Served as a grader for Astronomy I, responsible for grading 270 students' weekly homework assignments.

Proceedings and Papers

Wolfe H. "Island Caterpillar." *Proceedings of the Digital Naturalism Conference*, Koh Lon, Thailand. 2018. (forthcoming)

Wolfe H., Peljhan M., & Visell Y. "Singing Robots: How Embodiment Affects Emotional Responses to Non-linguistic Utterances." *IEEE Transactions on Affective Computing*. 2017.

Adderton, D., Cabrera, A., Kuchera-Morin, J., Kim, K.H., Putnam, L., Peliti, L., Rincon, G.A., Tilbian, J., **Wolfe, H.**, Wood, T., & Youn, K. "PROBABLY/POSSIBLY?: An Immersive Interactive Visual/Sonic Quantum Composition and Synthesizer." *ACM Multimedia*. 2017.

Rosli, MHW., Yerkes, K., Wood, T., **Wolfe, H.**, Roberts, C., Haron, A., Estrada F., & Wright, M. "Ensemble Feedback Instruments." *Proceedings of the International Conference on New Interfaces for Musical Expression* (Edgar Berdahl, Jesse Allison, eds.), Louisiana State University, 2015.

Presentations and Conference Demonstrations

Wolfe H. "Interactive Emotive Robots." Presented at the *Digital Naturalism Conference*, Koh Lon, Thailand, 2018.

Wolfe H. "Interactive Emotive Robots." Invited talk for the MAT Seminar Series. University of California Santa Barbara, Santa Barbara, California 2017.

Wolfe H., "R.O.V.E.R. the Reactant Observant Vacuous Emotive Robot." Poster session presented at the *Computing Research Association-Women Graduate Cohort Workshop*, Washington, D.C. 2017.

Wolfe H., "The Reactant Observant Vacuous Emotive Robot: A study exploring emotive response to robots producing sound." Invited talk at inTouch Health, Santa Barbara, California. 2016.

Exhibitions

- 2018 First Thursday, Santa Barbara Center for Art Science and Technology. Santa Barbara, California.
- Invisible Machine, University of California, Santa Barbara. Santa Barbara, California.
- 2017 Bio-creation and Peace. International Symposium of Electronic Arts. Manizales, Colombia. (catalogue)
- Re-habituating, University of California, Santa Barbara. Santa Barbara, California.
- 2016 White Noise, University of California, Santa Barbara. Santa Barbara, California. (catalogue)
- 2015 Open Sources, University of California, Santa Barbara. Santa Barbara, California. (catalogue)
- 2014 End of Year Show, University of California, Santa Barbara. Santa Barbara, California.
- 2013 Shadows in Space, University of California, Santa Barbara. Santa Barbara, California.
- 2009 Senior Show, Bennington College. Bennington, Vermont.

Performance and Exhibit Collaborations

- 2018 Invisible Machine, University of California, Santa Barbara. Santa Barbara, California. (collaboration with Sahar Sajadieh)
- Invisible Machine Concert, Santa Barbara Center for Art Science and Technology. Santa Barbara, California. (collaboration with the CREATE Ensemble)

- CREATE presents Elaine Walker microtonal singer with Richard Boulanger, University of California Santa Barbara. Santa Barbara, California. (collaboration with the CREATE Ensemble)
- Hydrogen-Like Atom. Sullivan Goss Gallery. Santa Barbara, California.
(collaboration with the AlloSphere Research Group)
- 2017 Bio-creation and Peace. International Symposium of Electronic Arts. Manizales, Colombia. (catalogue)
(collaboration with the AlloSphere Research Group)
- Re-habituaton Concert, University of California, Santa Barbara. Santa Barbara, California.
(collaboration with Jungah Son)
- ACM Multimedia. Mountain View, California. (collaboration with the AlloSphere Research Group)
- “Hydrogen-Like Atom” Museum of Exploration and Innovation. Santa Barbara, California.
(collaboration with the AlloSphere Research Group)
- 2016 CREATE AlloSphere Spatial Sound Concert. University of California, Santa Barbara, Santa Barbara, California. (collaboration with the CREATE Ensemble)
- 2015 Karlsruhe HFG Opening Ceremony. Karlsruhe, Germany.
(collaboration with the CREATE Ensemble)
- Carousel of Physics, Santa Barbara Museum of Art. Santa Barbara, California.
(collaboration with Dos Pueblos High School Engineering Academy)
- New Interfaces for Musical Expression Performance, Louisiana State University Baton Rouge. Baton Rouge, Louisiana. (collaboration with the CREATE Ensemble)
- Open Sources, University of California, Santa Barbara. Santa Barbara, California.
(collaboration with the CREATE Ensemble)
- Maker Faire. San Mateo, California.
(collaboration with Dos Pueblos High School Engineering Academy)
- CREATE Concert, University of California, Santa Barbara. Santa Barbara, California.
(collaboration with the CREATE Ensemble)
- 2014 Imagining the Universe - Music, Spirituality, and Tradition - Network Concert, University of California Santa Barbara and Stanford University. Santa Barbara, California.
(collaboration with the CREATE Ensemble)
- CREATE Concert, University of California, Santa Barbara. Santa Barbara, California.
(collaboration with the CREATE Ensemble)
- 2008 “Bennington Bookmarks” Crossett Library. Bennington, Vermont.
(collaboration with Robert Ransick, Joe Holt, David Meresman, Ben Choiniere, Jess Funston, Rebecca Grabman, Jason Irla, David Meresman, Luce de Palchi, and Kyle Schroeder)

Academic Service

Reviewer for SIGGRAPH 2018 and IEEE Transactions in Affective Computing.

Member, Public Affairs and Cultural Arts Committee, KCSB FM. Santa Barbara, California, 2018-present.

Vice President, Alliance of Women in Media Arts and Technology. Santa Barbara, California, 2017-2018.

Chair, Paper Review Committee, Alliance of Women in Media Arts and Technology Conference. Santa Barbara, California, 2017-2018.

Member, End of Year Show Committee. Santa Barbara, California, 2013, 2016.

Member, Robotics Candidate Hiring Committee. Santa Barbara, California, 2013–2014.

Web Developer, End of Year Show Committee. Santa Barbara, California, 2014.

Student Representative, Media Arts and Technology. Santa Barbara, California, 2013–2014.

Visual Arts Representative, Student Educational Policy Committee, Bennington College. Bennington, Vermont, 2008-2009.

Awards, Scholarships, Grants, and Fellowships

Graduate Collaborative Research Grant, Interdisciplinary Humanities Center. Santa Barbara, California, 2017.

Deutsch Fellowship, Robert W. Deutsch Foundation. Baltimore, Maryland, 2016–2017, 2017–2018.

Travel Grant, Media Arts and Technology Program. Santa Barbara, California, 2015, 2016 and 2017.

Mosher Fellowship, Mosher Foundation. Santa Barbara, California, 2014–2015, 2015–2016.

Travel Grant, Graduate Student Association. Santa Barbara, California, 2016.

Dean's Fellowship, University of California, Santa Barbara. Santa Barbara, California, 2012–2013.

3rd Place, Cooper Hewitt People's Design Award. New York, New York, 2008.

President's Scholarship, Bennington College. Bennington, Vermont, 2005.

Media Coverage

“Wired For Sound,” Sonia Fernandez, The UC Santa Barbara Current, March 7th 2018.

“South Coast Graduate Student Creates ‘Singing Robot’ To Study Robot-Human Communication,” Debra Greene, KCLU, October 12th, 2018.

Public Outreach

Produced and hosted weekly educational radio show on KCSB FM Santa Barbara, 2017–present.

Organized and hosted a visit from Santa Barbara High School Computer Science Academy, Dos Pueblos High School, and College of Creative Studies, May 2016.

Hosted Cooper Umoff (Santa Barbara High School) for a research internship, Summer 2016.

Mentor and Instructor, Dos Pueblos High School Engineering Academy, 2014–2015.

Organized and hosted a visit from Dos Pueblos High School Engineering Academy, November 2014.