

# Evan Barba

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*Assistant Professor*

Georgetown University

Communication, Culture & Technology Program

Affiliate Faculty, Department of Computer Science

Affiliate Faculty, Program in Learning and Design

Co-Director, Technology Design Studio

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## Education

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**Georgia Institute of Technology** (2006-2013)

*Ph.D. – Human-Centered Computing*

Dissertation: A Multiscale Framework for the Design and Analysis of Mixed Reality Experiences

Advisor: Blair MacIntyre.

Committee: Jay David Bolter, Ashok Goel, Michael Nitsche. Steve Benford (Nottingham)

**New York University** (2003-2006)

*M.S. – Computer Science*

Thesis: Computer Vision for Public Interaction

Advisor: Christoph Bregler

Readers: Davi Geiger, Ken Perlin

**Brown University** (1994-1999)

*A.B. – Modern Culture and Media Studies (Honors)*

*Sc.B. – Neuroscience*

Thesis: Melotrauma

Advisor: Christopher Amirault

## Academic Appointments

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**Assistant Professor** (2012-present)

*Communication, Culture and Technology Program*

*Affiliate Faculty Department of Computer Science*

*Affiliate Faculty Program in Learning and Design*

Georgetown University, Washington, D.C.

**Research Assistant** (2008-2012)

*Augmented Environments Lab*

Georgia Institute of Technology, Atlanta, GA

**Research Assistant** (2006-2008)

*BrainLab*

Georgia Institute of Technology, Atlanta, GA

## Peer-Reviewed Articles\*

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Osborn J.R., **Barba, E.**, Henderson, G. and Strong, L. (accepted for publication). The Pilgrimage Project: Speculative Design for Engaged Interdisciplinary Education. *Arts and Humanities in Higher Education*.

**Barba, E.** and <sup>S</sup>Zamora-Marroquin, R. (2017) A Primer on Spatial Scale and its Application to Mixed Reality. *IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2017)* (Nantes, France. October 9–13, 2017). IEEE, New York, NY. [Acceptance Rate: 17.9%]

**Barba, E.** (2017). Systemic Design for Second-Order Effects. *FormAkademisk-Research Journal of Design and Design Education*, 10(1).

**Barba, E.** (2015). Making Cultural Change in the Shop Class of the 21<sup>st</sup> Century. *Design Issues* (31). MIT Press [2013 SJR 0.275]

**Barba, E.**, and <sup>S</sup>Chancellor, S. (2015). Tangible Media Approaches to Introductory Computer Science. In *Proceedings of the 20th ACM 20th SIGCSE Conference on Innovation and Technology in Computer Science Education (ITiCSE 2015)*. [Acceptance Rate: 35%]

**Barba, E.** (2015). Three Reasons Why the Future is in the Making. *Science, Technology, & Human Values*. Vol. 40 Issue 4: pp. 638-650. [2014 Impact Factor 2.875]

**Barba, E.**, (2014). A Theory of Meaning for Mixed Reality Walking Tours. In *Proceedings of the 13<sup>th</sup> IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2014)*. (Munich, Germany, September 10-12, 2014). IEEE, New York, NY. [Acceptance Rate: 35%]

**Barba, E.** (2014). Toward a language of mixed reality in the continuity style. *Convergence: The International Journal of Research into New Media Technologies*, 20(1), 41-54. [2013 SJR 0.876]

**Barba, E.**, MacIntyre, B., Mynatt, E. (2012). Here We Are! Where Are We? Locating Mixed Reality in the Age of the Smartphone. *IEEE Proceedings Centennial Year Special Issue "Frontiers of Audiovisual Communications: New Convergences of Broadband Communications, Computing and Rich Media."* [2011 Impact Factor 6.810]

Xu, Y., **Barba, E.**, Radu, I., Gandy, M., MacIntyre, B. (2011). Chores for Fun: Understanding Social Play in Board Games for Digital Tabletop Game Design. In *Proceedings of DiGRA Conference 2011 Think, Design, Play*. Utrecht, Netherlands.

**Barba, E.**, MacIntyre B. (2011). A Scale Model of Mixed Reality. In *Proceedings of the Eighth ACM Conference on Creativity and Cognition* (Atlanta, Georgia, USA, November 3 - 6, 2011). C&C '11. ACM, New York, NY. [Acceptance Rate: 23%]

Xu, Y., **Barba, E.**, Radu, I., Shemaka, R., and MacIntyre, B. (2011). Pre-patterns for Designing Embodied Interactions with Handheld Augmented Reality Games. In *Proceedings of the 10<sup>th</sup> IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2011)*. (Basil, Switzerland, October 26-29, 2011). IEEE, New York, NY. [Acceptance Rate 25%][Winner Best Paper]

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\*Notes: In computing disciplines conference proceedings are considered primary publication venues. Conference acceptance rates and journal rankings are supplied when known. Superscript <sup>S</sup> denotes a student co-author.

Hill, A., **Barba, E.**, MacIntyre, B., Gandy, M., Davidson, B. (2011). Mirror Worlds: Experimenting with Heterogeneous AR. In *Proceedings of the 2011 International Symposium on Ubiquitous Virtual Reality (ISUVR)*. (Seoul, Korea, July 1-3, 2011). IEEE, New York, NY.

**Barba, E.**, Rouse, R., Bolter, J., and MacIntyre, B. (2010). Thinking Inside the Box: Meaning Making in a Handheld Augmented Reality Experience. In *Proceedings of the 9<sup>th</sup> IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2010)*. (Seoul, Korea, October 13-16, 2010). IEEE, New York, NY. [Acceptance Rate: 16%]

**Barba, E.**, Xu, Y., MacIntyre, B., and Tseng, T. (2009). Lessons From a Class on Handheld Augmented Reality Game Design. In *Proceedings of the 4<sup>th</sup> international Conference on Foundations of Digital Games (Orlando, Florida, April 26 - 30, 2009)*. FDG '09. ACM, New York, NY, 2-9. [Acceptance Rate: 28.3%]

**Barba, E.** (2008). Getting Mod: a look at modularity in mobile systems. In *Proceedings of the 9<sup>th</sup> Workshop on Mobile Computing Systems and Applications (Napa Valley, California, February 25 - 26, 2008)*. HotMobile '08. ACM, New York, NY, 22-26. [Acceptance Rate: 23%]

Xu, Y., Gandy, M., Deen, S., Schrank, B., Spreen, K., Gorbsky, M., White, T., **Barba, E.**, Radu, I., Bolter, J., and MacIntyre, B. (2008). BragFish: Exploring Physical and Social Interaction in Co-located Handheld Augmented Reality Games. In *Proceedings of the 2008 international Conference on Advances in Computer Entertainment Technology (Yokohama, Japan, December 03 - 05, 2008)*. ACE '08, vol. 352. ACM, New York, NY, 276-283. [Acceptance Rate: 24%]

## Proceedings, Posters, and Demonstrations (peer-reviewed)

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Rouse, R. and **Barba, E.** (2017) Design for Emerging Media: How MR Designers Think about Storytelling, Process, and Defining the Field. In *Proceedings of the 10<sup>th</sup> International Conference on Interactive Digital Storytelling (ICIDS 2017)*. [acceptance rate: 32%] [paper]

**Barba, E.** (2017). Cognitive Point-of-View in Recursive Design. *Relating Systems Thinking and Design Symposium 6 (RSD6)*. Oslo School of Architecture and Design (AHO). Oslo, Norway October 18-20, 2017 [acceptance rate: 33%] [paper]

Calvert, S., Brunick, K., Putnam, M., Zamaroczy, ZD., McCaffery, B., Nadeo, M., **Barba, E.**, (2017) Children's Engagement with an Intelligent Game for Learning Early Math Skills. In *Proceedings of the Society for Research in Child Development Biennial Meeting (SRCD 2017)*. April 6-8, 2017. Austin, Texas. [poster]

**Barba, E.**, Wei, Y., Mann, J. and Singh, L. (2016) Integrating Visual Exploration into Traditional Scientific Research Methodology. In *Proceedings of the IEEE Conference on Visual Analytics Science and Technology (IEEE VAST 2016)*. Oct. 23-28, 2015. Baltimore, MD. [poster]

**Barba, E.**, <sup>s</sup>Majeed, Y. and <sup>s</sup>Miller, C. (2016) Hierarchy in Flux: Re-engineering a Sociotechnical Context for Teleoperated Robots. *Relating Systems Thinking and Design Symposium 5 (RSD5)*. Oct. 13-15, 2016. OCAD University, Toronto, Canada. [paper]

**Barba, E.**, and Stewart, A. (2015). Co-design for Second-Order Effects and Institutional Change: A Case Study in Sustainability. *Relating Systems Thinking and Design Symposium 4 (RSD4)*. Sept. 1-3, 2015. Banff Centre Banff, Alberta, Canada. [paper]

Stewart, A., Bezak, B. and **Barba, E.** (2015) Sustainability Theory and Practice: Partnering with DC Water to Pilot a Sustainability Course. *International Town & Gown Association (ITGA 2015)*. May 31 -June 3, 2016. Washington, DC. [abstract/presentation]

**Barba, E.** and Stewart, A. (2015). Co-design for Community Based Learning in Urban Sustainability. In *Proceedings of the Smart and Sustainable Campuses Conference*. Mar. 29-31, 2015. Baltimore, MD. [abstract/presentation]

**Barba, E.** (2013) Shop Class for the 21<sup>st</sup> Century? Remaking an Old Debate. In *Proceedings of the Society for the Social Studies of Science (45)*. Oct. 8-13, 2013. San Diego, CA. [abstract/presentation]

**Barba, E.,** Rouse, R., MacIntyre, B., and Bolter, J. (2009). (in)box with Malcom. In *Proceedings of the Seventh ACM Conference on Creativity and Cognition* (Berkeley, California, USA, October 26 - 30, 2009). C&C '09. ACM, New York, NY, 455-456. {demonstration]

**Barba,E.,** Huang, K. (2006). Public Space Invaders. *Come Out and Play 2006*. New York, NY. [demonstration]

**Barba, E.** (2006). Infrared Spotlight. Projecting Off the Wall. *4th IEEE International Workshop on Projector-Camera Systems (ProCams 2006)*. New York, NY. [demonstration]

## Other Publications

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**Barba, E.** (2016) Keeping progress on the long and winding road. *interactions* 23, 6 (October 2016), 63-65. Association for Computing Machinery. DOI: <http://dx.doi.org/10.1145/2998458>

## Book Chapters

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Jackson, M., Mappus, R., **Barba, E.**, Hussein, S., Venkatesh, G., Shastry, C., and Israeli, A. (2009). Continuous Control Paradigms for Direct Brain Interfaces. In *Proceedings of the 13th International Conference on Human-Computer Interaction. Part II: Novel Interaction Methods and Techniques*, Julie A. Jacko (Ed.). Springer-Verlag, Berlin, Heidelberg, 588-595.

## Grants

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### Funded

*Technology Development for Robotic Servicing*  
National Aeronautics and Space Administration (NASA) (2016 - 2020)  
PI: Evan Barba  
Funded Amount: \$1,000,000 ceiling

*Beyond Technical Solutions to Cybersecurity Risk Management and Risk Communication*  
Department of Homeland Security: CCICADA Center of Excellence at Rutgers University (2017)  
Co-PIs: Evan Barba, Eric Burger, Matthew Cronin, Robin Dillon-Merrill  
Funded Amount: \$177,759

*An Enhanced Interface for Tele-robotic Servicing of Orbital Space Assets*  
National Aeronautics and Space Administration (NASA) (2015 - 2016)  
PI: Evan Barba  
Funded Amount: \$175,000

### Georgetown Internal

*The Modular Escape Room Framework*

Georgetown: Technology-Enhanced Learning (TEL 2017)

PI: Evan Barba

Funded Amount: \$5000

*The Pilgrimage Project*

Georgetown: Initiative on Technology-Enhanced Learning (ITEL 2015)

Co-PIs: Evan Barba, Gretchen Henderson, JR Osborn, Lisa Strong

Funded Amount: \$24,600

*Increasing Capacity for Human-Robot Interaction Research*

Georgetown: Summer Academic Grant (2015)

PI: Evan Barba

Funded Amount: \$9,499

*Tangible and Embodied Computing*

Georgetown: Initiative on Technology-Enhanced Learning (ITEL 2013)

PI: Evan Barba

Funded Amount: \$5000

### **Declined**

*EDSIM Challenge: I Object! Virtual Reality Courtroom Simulation for High School Civics Instruction*

Department of Education (2017)

Co-PIs: Evan Barba, Tanina Rostain

*NSF CAREER: A Learning Progression in Systems Theory, Design Methods, and Computational Media as a Framework for Interdisciplinary Education and Learning*

National Science Foundation, EHR (2015)

PI: Evan Barba

*NSF CAREER: Systems Thinking, Design Methods and Computational Media, A Common Foundation for STEM and the Liberal Arts*

National Science Foundation, EHR (2014)

PI: Evan Barba

### **As Contributing Personnel**

*Collaborative Research: Using Educational DVDs to Enhance Preschoolers' STEM Education*

National Science Foundation, REAL Award Number: 1252113 (2013)

Software Engineer with Sandra Calvert as P.I.

*Collaborative Research: Urban Sustainability and Push-Pull Drivers of Residential Change: Washington, D.C., Baltimore, Maryland, and the Chesapeake Bay*

National Science Foundation, ULTRA-Ex Award Number: 0948947 (2010)

Instructor and Outreach Organizer with Allison Whitmer as P.I.

*Evoked Response Direct Brain Interfaces for Continuous Control*  
National Science Foundation, HCC SGER. Award Number: 0745829 (2008)  
Research Assistant with Melody Moore Jackson as P.I.

## Awards

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Honorable Mention – *Rainwater Capture at Lauinger Library*  
EPA Campus Rainworks Challenge (2015) (Design Competition)  
Faculty Mentor

## Invited Museum Exhibitions

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**Barba, E.** and Huang, K. (2009-2010). “Public Space Invaders.” *Actions: What You Can Do With the City, Installation view at the Canadian Centre for Architecture, Montréal ©CCA, and Graham Foundation for Advanced Studies in the Fine Arts. Chicago, IL.*

## Invited Presentations and Panels

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*“Evolving the Interface for Robotic Servicing Missions”*  
Virginia Tech Department of Computer Science (2017).  
Invited presentation discussing my work at NASA

*“Loose Lips Sink Ships: Understanding User Behaviors Around Software Security”*  
Software and Security Engineering Research Center (S<sup>2</sup>ERC) (2016)  
Invited presentation on strategies for designing workflows that improve user adherence to software security protocols.

*“Multiscale Design for Mobile Augmented Reality”*  
International Game Developers Association (2016)  
Invited presentation discussing the role of spatial scale in augmented reality gaming.

*“The Three Legs of 21<sup>st</sup> Century Computing Education”*  
American University Department of Computer Science (2015).  
Invited presentation discussing the integration of computing, systems, and design in computer science education.

*“Globalization and Standards: Supply Chain Operations, Strategy and Infrastructure Workshop”*  
National Institute of Standards and Technology (2015).  
Panelist discussing the role of engineering standards in education.

*“NSF Avatars Workshop”*  
Northwestern University (2014)  
Panelist discussing the engineering and usability of software agents in STEM education.

*“Exploring the Documentary”* The Association for the Study of Play (TASP). (2010).  
Panelist discussing the use of ethnographic film as a research and classroom method for the study of communities of play.

*“The Worlds Outside”*  
ARGfest. (2010).  
Presentation discussing the role of Mixed Reality technology in creating Alternate Reality Games.

## Tutorials & Workshops (as organizer)

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Evan Barba

*"Systemic Design for User Experience (SD4UX)"*

Relating Systems Thinking and Design Symposium 5 (RSD5). Oct. 13-15, 2016. OCAD University, Toronto, Canada.

Evan Barba, Jay Bolter, Maria Engberg, Isaac Kulka, Rebecca Rouse

*"Integrating and Using Panoramas and Photographic Images in AR Experiences."*

11<sup>th</sup> IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2012).

## Patents

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Tunick, J., Rizzaro, T., **Barba, E.**, Huang, K. (2008). System and method for monitoring viewer attention with respect to a display and determining associated charges. USPTO# US (abandoned)

## Technical Reports

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**Barba, E.** and Jackson, M.M. (Georgia Institute of Technology). (2007). *Evoking Visual Responses with Functional Near-Infrared*. Archinoetics LLC.

**Barba, E.** and Nguyen, Duy (Georgia Institute of Technology). (2007). *Evaluating the Potential of Outdoor AR Multiplayer Games*. Nokia Research.

## Major Software Projects

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(in progress) **Tele-Robot Interface** – An interface for piloting space robots

(in-progress) **Virtual Objection** – VR simulation for training law students

2013 **Diego's Birthday** – Interactive game for child development research

2011 **GT Tour** – Mixed reality infrastructure for tours of Georgia Tech campus

2010 **The Fan Game** – Interactive augmented reality exhibit situation in Olympic Park, Atlanta

2009 **[inbox] with Malcom** – Interactive augmented reality exhibit inside a shipping container

2007 **IMCFacePlate** – Face detection-based marketing platform

2006 **Infrared Spotlight** – Interactive art and gaming platform

## Teaching

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### Courses Developed

#### Georgetown

CCTP 506 *Fundamentals of Technology* (Departmental Requirement)

Co-instructors: David Ribes (Spring 2013, 2014), JR Osborn (Spring 2015, 2016, 2017)

CCTP 556 *Tangible and Embodied Computing* (Fall 2013)

CCTP 617 *Interaction Design: Electronics and Semantics* (Spring 2014, Fall 2015, 2016, 2017))

CCTP 619 *Sustainability: Theory and Practice* (Fall 2014, Spring 2017)

CCTP 652 *Technology, Culture and Mind* (Fall 2012)

CCTP 817 *Sustainability: Foundations, Technology and Design* (Spring 2013)

CCTP 821 *Interactive Technologies in Cultural Heritage (Spring 2016)*

CCTP 611 *Systemic Design for User Experience (Fall 2016, Fall 2017)*

### Georgia Tech

LCC 6650 *Experiential Handheld AR Project Studio*

Co-Instructor: Rebecca Rouse

CS 8803 *Handheld Augmented Reality Game Design*

Supervisors: Blair MacIntyre & Jay David Bolter

CS 8803 *Building Ubiquitous Devices*

Supervisors: Thad Starner & Gregory Abowd

CS 8002 *Advanced Seminar in Human-Centered Computing*

Co-Instructor: Sarita Yardi

## **Advising**

### Theses

Katherine Hild (M.A. CCT)

*Leave Me Alone -- Protecting Children's Privacy in the Digital Age*

Minoo Razavi (M.A. CCT)

*Immigrant Children Navigating Their New National Identity Online*

Camille Koue (M.A. CCT)

*Sustainable Implementation of Emerging Infrastructure in Cities: A Case Study of Parklets*

Stevie Chancellor (M.A. CCT)

*Using Support Vector Machines to Distinguish Users through Touch Gesture Recognition*

Keaton Bedell (B.A. American Studies)

*How Brands Go Digital: A Toolbox For Moving Your Brand Online*

### Second Reader

Melissa Richards (Ph.D. Psychology)

*Young Children's Parasocial Relationships: Media Characters as 21<sup>st</sup> Century Playmates*

Emily Cheung (M.A. CCT)

*Affective Expression, Open Communication, and Group Cohesion in Georgetown's First Massive Open Online Course: Analyzing How Students Engagement and Retention in Globalization's Winners and Losers Challenges for Developed and Developing Countries.*

Lisa Zimmerman (M.A. CCT)

*Green Building Standards in the Gulf*

### Other Advising

Faculty Advisor (2016-present)

*Georgetown Forum Radio Show*

6 students – weekly meetings

Faculty Advisor (Fall 2016-Spring 2017)

*Deloitte Data Analytics Fellowship*

3 students – monthly meetings

Faculty Advisor (Summer 2015-2016)

*Robotics Interest Group*

7 students – weekly meetings



Co-Advisor (Fall 2014-Fall 2015)

*Data Visualization Research Group*

8 students – weekly meetings

Faculty Advisor (Summer 2014-2015)

*Robotics Interest Group*

6 students – weekly meetings

Faculty Advisor (Summer 2013 - Spring 2014)

*Sustainability Fellows*

12 students – daily meetings (summer) | weekly meetings (fall/spring)

### Independent Studies

Anthony Lioon (UG-CS) (data visualization)

Chen Shen (CCT) (agent-based modeling)

Sylvia Rusack (Psych) (interaction design)

Julie Salah (CS) (virtual reality)

Chris Miller (CCT) (robotics)

Shannon Case (CCT) (STEM Education)

Zach Schalk (CCT) (data visualization) x2

Jonah Joselaw (UG-CS) (virtual reality)

Eleri Syverson (CCT) (robotics)

Ramon Zamora (CCT) (augmented reality)

Danielle Storbeck (CCT) (robotics)

Ziyan Liu (UG-CS) (tangible computing)

Timothy Dougherty (UG-MSB) (interaction design)

*Awarded: Georgetown Undergraduate Research Symposium Student Choice Award (Spring 2014)*

### High School Mentoring

**Real time 3D modeling with MS Kinect** (Summer 2014)

Erik Song (Thomas Jefferson High School)

Anders Choi (Thomas Jefferson High School)

### Guest Lectures & Tutorials

**Physical Computing with Arduino** (Tutorial with 20 participants)

Georgetown Hackathon (2016)

**Telling the Stories of Artifacts** (Tutorial with 24 participants)

Georgetown Innovation Series Storytelling Summit: Legends of DC (2013)

*CCTP 505 Introduction to Communication, Culture and Technology*

**Human-Robot Reconfigurations**

Instructors: Leticia Bode, Jeanine Turner

*CCTP 505 Introduction to Communication, Culture and Technology*

**Mental Models and User Experience**

Instructors: Matthew Tinkcom, Jeanine Turner

*BIOL-261 Science & Society: Global Challenges*  
**Design for International Development**  
Instructor: Francis Slakey

*CS 4605 Mobile Human-Computer Interaction (Georgia Tech)*  
**Mobile Handheld Augmented Reality**  
Instructor: James Clawson

*CS 3790 Introduction to Cognitive Science (Georgia Tech) (3 lectures)*  
**Brain-Computer Interfaces**  
**Distributed Cognition**  
**Four Cognitive Theories for Technologists**  
Instructor: Rosa Arriaga

## Service

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### Georgetown

Co-Director (Fall 2013 – present)  
*Technology Design Studio*

Co-Executive Producer (2016-present)  
*Georgetown Forum Radio Show*

CCT Admissions Review (2013, 2014, 2015, 2016, 2017)

CCT Scholarship Review Committee (2013, 2014, 2015, 2016, 2017)

CCT Merit Review Committee (2015, 2017)

CCT Faculty Search Committee (2016-2017)  
*Media & Journalism*

Reviewer (2017)  
*GradGov Research Project Award (GRPA) (21 applications)*

Reviewer (2016)  
*Conference Travel Grant Competition (52 applications)*

MakerHub Steering/Hiring Committee (2016)

Office of Sustainability Hiring Committee (2016)

Steering Committee (Spring 2014 – 2016)  
*Certificate in Writing, Communication, and Design*

Steering Committee (Spring 2015 – 2016)  
*Georgetown Design Initiative*

Juror (2015) (three sessions)  
*Bioethics 105 – Instructor: Maggie Little*

Car2Go Sustainable Campus Stewardship Award Committee (2015)

Faculty Reviewer (2015)  
*Coca-Cola Sustainability Fund*

Participant (2015)  
*Studio Learning Symposium (3 days)*

Participant (2015)  
*Sustainability Workshop (2 days)*

Participant (2015)  
*Design Conversation with Nadia Roumani (half-day)*

Participant (2014)  
*People2People2: Virtual Tribes (2 days)*

Grant Reviewer (Fall 2013)  
*Initiative on Technology-Enhanced Learning (6 proposals)*

CCT Faculty Search Committee (2012)  
*Global Technology & Policy*

## **Professional**

### Reviewing – Grants

National Science Foundation (2-day Panel/22 proposals)  
*(2016) STEM + Computing Partnerships (STEM+C)*

National Science Foundation (2-day Panel/18 proposals)  
*(2015) STEM + Computing Partnerships (STEM+C)*

National Science Foundation (1 proposal)  
*(2015) Science, Technology, and Society (STS) Program.*

National Science Foundation (2-day Panel/24 proposals)  
*(2014) STEM-CP: Computing Education for the 21<sup>st</sup> Century (STEM-CP: CE21)*

### Reviewing – Conferences & Journals

ISMAR – 2017 Mixed and Augmented Reality)  
Arts & Humanities in Higher Education – 2017 (Design Education)  
CHI-PLAY- 2017 (Computer-Human Interaction)  
CHI – 2015 (Computer-Human Interaction)  
NordiCHI – 2014 (Computer-Human Interaction)  
CHI – 2013 (Computer-Human Interaction)  
Digital Creativity – 2012 (Mixed Reality Performance)  
CHI – 2012 (Computer-Human Interaction)  
ISMAR – 2011 (Mixed and Augmented Reality)  
C&C – 2011 (Creativity and Cognition)  
ITS – 2011 (Interactive Tabletops and Surfaces)  
“Meet Me at the Fair” – 2011 Eds.: Pearce, C., Rouse, R., Schweizer, B.

### Committees

Registration Chair  
C&C 2011 (Creativity & Cognition)  
ISMAR 2012 (International Symposium on Mixed and Augmented Reality)

Session Chair  
SIGCSE 2015 (Computer Science Education)

Committee Member  
FutureMedia 2012 - (Mixed Reality Industry Roundtable)  
Geospatial Information Systems Community of Interest

## Community

Chair (Fall 2014 - present)  
*Whittier Park Architectural Review Board*

Volunteer (2008-2012)  
*East Lake Terrace Neighborhood Association*

## Other

Lab Manager - Augmented Environments Lab (Georgia Tech)  
Lab Manager - BrainLab (Georgia Tech)  
Lab Designer - Rapid Prototyping Lab (Georgia Tech)  
CHI 2010 - Local Tour Guide/Publicity Video Producer

## Affiliations and Accreditations

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ACM - Association of Computing Machinery  
IEEE - Institute of Electrical and Electronics Engineers  
ILSSA - Impractical Labor in the Service of Speculative Arts  
LEED Green Associate - Leadership in Energy and Environmental Design  
IDF - Interaction Design Foundation

## Media Production

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*Art Department*  
Arff! (2002) - Production Designer, Ugly Productions Inc.  
Plead (2002) - Production Designer, Ugly Productions Inc.  
Freshening Up (2002) - Property Master, mayFly Entertainment

*Editorial Department*  
Sweet Home Alabama (2003) - 2<sup>nd</sup> Assistant Editor (uncredited), D&D Films  
Conventional Dress (2009) - Editor, Emergent Game Group

*Production Department*  
Crooked Lines (2003) - 2<sup>nd</sup> Assistant Director, Crooked Lines Productions, LLC  
G (2002) - Production Assistant, Andrew Lauren Productions  
Infested (2002) - Production Assistant, City Block Productions  
The Victim (2001) - Key Production Assistant, 7<sup>th</sup> Floor  
Egg-The Arts Show (1999) - Assistant Producer, WNET/Thirteen

## Skills

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### Material

Arc Welding  
Circuit Design and Fabrication  
Injection Molding  
Intermediate Woodworking  
Laser Engraving and Cutting

3D Printing  
Tile Cutting and Installation  
Vacuum Forming

## **Virtual**

Microcontroller Programming (in C and Assembly)

Programming Languages:

(C/C++/C#, Java, JavaScript, Python, HTML/CSS/PHP)

Programming Environments

(iOS/Xcode, Eclipse, Visual Studio, Arduino, Processing)

Adobe Cloud (premiere, photoshop, audition, illustrator)