

Serena Booth

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Education

- current PhD Student in Computer Science, Massachusetts Institute of Technology.
I'm a member of the [Interactive Robotics Group](#). I aspire to design useful robots by fundamentally understanding both robotics technology and the implicit contracts within human-robot interaction.
- 2016 B.A., Computer Science with in-field Highest Honors, Harvard University.
 - Thesis advised by Prof. Radhika Nagpal (see publication below).
 - *Awarded Thomas T. Hoopes thesis prize for excellence in undergraduate research.*

Publication—Peer-reviewed Conference

- 2017 Serena Booth, James Tompkin, Hanspeter Pfister, Jim Waldo, Krzysztof Gajos, Radhika Nagpal, *Piggybacking Robots: Human-robot Overtrust in University Dormitory Security*, ACM/IEEE International Conference on Human-Robot Interaction (HRI).
 - Webpage with video: slbooth.com/piggybacking_robots.html
 - Press: Vice, Vocativ, FujiTV (Video, Japanese), Soonish: Ten Emerging Technologies (Weinersmith and Weinersmith, Penguin, 2017).

Teaching

- 2015–2016 Research Assistant & Teaching Fellow, Harvard University.
Held weekly sections (10-15 students), wrote problem sets, held office hours, graded work for:
 - CS189, Spring '16: Autonomous Robot Systems.
 - Migrated course from E-Pucks to new TurtleBot robotic platform.
 - Developed six courseworks, ranging in scale from playground environments to building-wide.
 - CS121, Fall '15: Theory of Computation.
 - CS1, Spring '15: Great Ideas in Computer Science.

Experience

- 2016–2018 Associate Product Manager, Google.
 - APM II: ARCore, augmented reality SDK. PM'ed 6DoF motion tracking, scene understanding algorithms, and quality, measured by in-lab benchmarking and user-collected telemetry.
 - APM I: Google Search. Verticals included cars, motorbikes, lottery, commutes, and dinosaurs.
 - 20% Project: Human-Robot Interaction at Google[X] (2017)
- 2016 Wyss Institute, Harvard / Le Laboratoire, Cambridge / Strate École de Design, Paris.
 - Collaborative summer research exploring the creation of growing shape-changing fabric through a combination of origami-inspired pleats and an interwoven shape memory alloy.
- 2015 Software Engineering Intern, Engineering for Retail, Apple.
 - Project details proprietary until patented. C++, Obj-C, Swift, Python, OpenCV, Git.
- 2014 EngageCSEdu: Student Researcher, Google Research & NCWIT, www.engage-csedu.org.
 - Researched deterrents to women & minorities studying CS, aggregated inclusive CS course materials.
- 2014 Software Engineering Intern, Payments & Commerce Solutions, Intuit.
 - Created health check for invoice routing system, created an interactive portal to view and evaluate invoice routing APIs, wrote API and unit tests. Java, JavaScript, and test frameworks.
- 2013 Researcher-Writer, *Let's Go: The Student Travel Guide*, Berlin, Germany.
 - Wrote over 400 travel listings, published in *Let's Go Budget Berlin* and *Let's Go Europe*.

- 2011–2012 [Gap Year] Imagineer, Walt Disney Imagineering Research & Development.
- Ran field tests in Orlando & Paris to study hotel towel reuse and park guest distribution.
 - Designed data collection format for Disney-supported micro-entrepreneurs' cinemas in Vietnam.

Mentoring & Volunteering

- 2019 Co-President, MIT GW6: Graduate Women of Course 6 (EECS).
- 2017–2018 VEX Robotics Mentor, Girl Scouts, NASA Ames.
- Botball Robotics Competition Judge, NASA Ames.
- 2018 HRI 2019 Full Paper Reviewer.
- Data Entry, Courtwatch MA.
 - Panelist, WeCode (Women Engineers Code) Conference, Harvard University. Participated on two panels discussing product management. Hosted mentoring lunch.
 - She Innovates Hackathon Mentor, University of Pittsburgh.
- 2017 Reality, Virtually, Hackathon Mentor, MIT Media Lab.
- CS4HS Application Reviewer, Google.
 - Society of Women Leaders Retreat Panelist, Stanford University. Panelists from various industries discussing roles and responsibilities
- 2015–2016 Women in CS Mentor to Underclassmen, Harvard University.
- 2014–2015 Student Volunteer, WeCode (Women Engineers Code) Conference, Harvard University.
- 2012–2015 NCWIT Aspirations in Computing Application Reviewer.

Awards and Grants

- 2018 Graduate Research Fellowship (GRFP), National Science Foundation.
- Jacobs Presidential Fellowship, MIT.
 - Finalist, Paul and Daisy Soros Fellowship for New Americans.
- 2016 Thomas T. Hoopes Prize for Excellence in Undergraduate Research, Harvard University. Nominated by Profs. Nagpal & Waldo for thesis on overtrust in robots compromising physical security.
- Summer Idea Translation Fellowship, Harvard Paulson SEAS, Wyss Institute. Awarded to develop Alter, a growing and shape-changing fabric.
- 2015 Best Beaker Application, Hackathon hosted by Two Sigma Investments. Conducted a data-driven investigation into relationship between graffiti and gentrification in NYC.
- Honorable Mention, Collegiate Award, NCWIT. Showcased SwimSwallow, a swimming robot constructed from acrylic.
- 2014 Grant Recipient, Nectar Funding, Harvard School of Engineering and Applied Sciences. Developed BrainBall, an EEG-controlled cat toy.
- 2011 National Winner, Aspirations in Computing, NCWIT.