

# MAGGIE OATES

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## EDUCATION

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### **Carnegie Mellon University, PhD Student**

*Societal Computing PhD, Institute for Software Research*

Research Interests: Usable privacy and security, Tech ethics & policy, Arts-based methods

Started August 2017

*Pittsburgh, PA*

### **Indiana University, BS in Computer Science**

*Concentration: Artificial Intelligence*

Minors: Mathematics, Linguistics, International Studies

May 2017

*Bloomington, IN*

## ONGOING PROJECTS

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### **Privacy and Security in the Arts**

January 2018

Artists and museums are increasingly turning to digital data as a medium. The context of art poses new challenges in data governance; while privacy preserves psychological safety, art actively disrupts it. Users don't walk into a gallery expecting a data use agreement. We focus on the case study of "Project Amelia," a large-scale immersive theater production involving real technology, over 100 production team members, and over 800 audience members who contributed their social media data to the performance.

### **Online Interview Experiment**

April 2018

Online interviews are a popular research tool, but are an under-studied medium of data collection. We are conducting and analyzing 150 online interviews in a large-scale online experiment to assess differences of data across 7 modes of interviewing (e.g., email vs video).

### **Mapping Machine Learning**

July 2019

Interdisciplinary project to map out public-facing deployments of Machine Learning in the Pittsburgh, PA area. The team includes public policy, participatory design, and computer science representation.

## PUBLICATIONS

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**Maggie Oates**, Yama Ahmadullah, Abigail Marsh, Chelse Swoopes, Shikun Zhang, Rebecca Balebako, and Lorrie Faith Cranor. "Turtles, Locks, and Bathrooms: Understanding Mental Models of Privacy Through Illustration." In *Proceedings on Privacy Enhancing Technologies (PETS '18)*, 2018. **Best Student Paper Award**.

Jessica Colnago, Summer Devlin, **Maggie Oates**, Chelse Swoopes, Lujo Bauer, Lorrie Cranor, and Nicolas Christin. "It's Not Actually That Horrible": Exploring Adoption of Two-Factor Authentication at a University", In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, ACM, 2018.

Hana Habib, Pardis Emami Naeini, Summer Devlin, **Maggie Oates**, Chelse Swoopes, Lujo Bauer, Nicolas Christin, and Lorrie Faith Cranor. "User Behaviors and Attitudes Under Password Expiration Policies." In *Proceedings of the Fourteenth Symposium on Usable Privacy and Security (SOUPS'18)*. 2018.

## EXPERIENCE

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### **Robotics Institute Summer Scholar**

*Carnegie Mellon University*

Summer 2016

*Pittsburgh, PA*

- Contributed to a ground robot for automated plant phenotyping as part of the ARPA-E TERRA program
- Integrated a stereo camera and developed a vision algorithm for plant stalk detection in challenging field conditions

### **Social Informatics Researcher**

*Indiana University*

Dec 2014 - Dec 2015

*Bloomington, IN*

- Studied the sociotechnical impact of character encoding on searchability for minority groups
- Awarded 2<sup>nd</sup> Overall at the IU Computer Science Research Symposium

### **Technology Analyst Intern**

*JPMorgan Chase & Co*

Summer 2015

*Chicago, IL*

- Contributed to a greenfield Java web application on a team of 11

**Resident Assistant & Diversity Educator**

*Indiana University*

Aug 2014 - Dec 2015

*Bloomington, IN*

- Facilitated two dozen educational programs and events to educate 1000 students & staff on diversity & inclusion topics (2014)
- Supported a floor of 50 women in STEM (2015) in academic & community development

**Field Intern**

*Freedom Indiana*

Fall 2013 - 2014

*Bloomington, IN*

- Mobilized over 400 local volunteers in a grassroots campaign against anti-LGBTQ legislation

## **FELLOWSHIPS & SCHOLARSHIPS**

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<b>K&amp;L Gates Fellowship in Ethics and Computational Technology</b>	2019
<b>National Science Foundation Graduate Research Fellowship Honorable Mention</b>	2019
<b>CyLab Presidential Fellowship</b>	2018
<b>Interactive Intelligence Corporate Partner Scholarship</b>	2016
<b>National Merit Scholar</b>	2013

## **GRANTS**

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<b>CMU Interdisciplinary Project Seed Grant (GuSH)</b>	2019
<b>PEPR Diversity Travel Grant</b>	2019
<b>SOUPS Student Travel Grant</b>	2019
<b>PETS NSF Travel Grant</b>	2018

## SERVICE

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<b>REUSE Admissions Committee</b> <i>Research Experience for Undergraduates in Software Engineering</i>	Spring 2020
<b>AnitaB.org Board of Trustees</b> <i>Board Member</i>	Oct 2017 - Oct 2019
<b>REUSE Admissions Committee</b> <i>Research Experience for Undergraduates in Software Engineering</i>	Spring 2019
<b>Graduate Student Association</b> <i>Student Senate Representative</i>	Aug 2017 - Sept 2018
<b>NSF Research Experience for Undergraduates Mentor</b> <i>Mentor for two undergraduate students working on an arts and computing research project</i>	Summer 2019
<b>Ethics for Technologists Lecture Series</b> <i>Founder, Organizer</i>	Fall 2018 -
<b>Science &amp; Technology Studies for CS Reading Group</b> <i>Founder, Organizer</i>	Summer 2018
<b>NSF Research Experience for Undergraduates Mentor</b> <i>Mentor for an undergraduate student working on security research</i>	Summer 2019
<b>CMU Teaching Award Committee</b> <i>Committee Member</i>	Spring 2018
<b>Board of Aeons</b> <i>Undergraduate student advisor to Indiana University President McRobbie</i>	June 2016 - May 2017
<b>FIRST Lego Robotics</b> <i>Co-Coach</i>	June - Dec 2015
<b>Indiana University Sexual Violence Prevention Taskforce</b>	Fall 2015
<b>International Collegiate Programming Competition</b>	Fall 2014
<b>Indiana University Student Assoc.</b> <i>Speaker of the House, Senate Member</i>	Fall 2014 - Dec 2016
<b>External Reviewing</b> ACM CSCW (2019) ACM CHI (2019) ACM TOPS (2018) ACM CCS (2018, shadow)	

## TEACHING

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<b>17-630 Ethics and Policy Issues in Computing</b> <i>Teaching Assistant, Carnegie Mellon (guest lectures, grading)</i>	Spring 2020
<b>17-630 Ethics and Policy Issues in Computing</b> <i>Teaching Assistant, Carnegie Mellon (guest lectures, grading)</i>	Spring 2019
<b>CSCI-C343 Intro to Data Structures</b> Spring 2017 <i>Undergraduate Instructor, Indiana University (lab curriculum, grading)</i>	
<b>CSCI-C211, Intro to Computer Science</b> <i>Undergraduate Instructor, Indiana University (lab curriculum, grading)</i>	Spring 2016 - Fall 2017

## PRESENTATIONS & TALKS

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<b>Privacy Engineering Practice &amp; Respect</b> "Privacy in the Arts"	Aug 2019
<b>Symposium on Usable Privacy and Security</b> "Against Trust in Technology"	Aug 2019
<b>re:publica Accra</b> "Turtles, Locks, and Bathrooms"	Dec 2018
<b>Opportunities in Undergrad Research in CS</b> "Anything But Not Everything" (student keynote)	Oct 2018
<b>Cylab Partners Conference</b> "Turtles, Locks, and Bathrooms"	Oct 2018
<b>Grace Hopper Conference</b> "Behind the Scenes of GHC" (moderator, panel on nonprofit governance)	Oct 2018
<b>Symposium on Usable Privacy and Security</b> "Exploring 2FA Adoption At a University" (poster)	Aug 2018
<b>Privacy Enhancing Technologies</b> "Turtles, Locks, and Bathrooms"	Jul 2018
<b>CMU Privacy Seminar</b> "Turtles, Locks, and Bathrooms"	Jul 2018
<b>Privacy Law Scholars Conference</b> "Turtles, Locks, and Bathrooms" (by invitation only)	Jun 2018
<b>Opportunities in Undergrad Research in CS</b> "The Graduate School Experience" (panelist)	Oct 2017
<b>Indiana University Women in Computing Celebration</b> "The Robotanist" (student keynote)	Apr 2017
<b>Robotics Institute Summer Scholar Symposium</b> "Sorghum Stalk Detection for an Agricultural System" (poster)	Aug 2016
<b>Indiana University Research in CS Symposium</b> "Your Name Here: Exploring the Sociotechnical Impacts of Character Encoding" (poster)	Apr 2015

## OTHER PROJECTS

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<b>Object-Oriented Orgasm @ University of Chicago</b> Cohort member of OOOHacks, a 3-day collaborative event exploring the intersection of sex, inclusive design, HCI, and hardware. My team posed the question, "How do you have sex in/with Non-Newtonian fluid?"	March 2020
<b>Please Try This At Home</b> Organizer for a free, crowd-funded, community conference exploring biohacking, transhumanism, and radical bodily autonomy outside of traditional institutional structures.	Sept 2019

## “Own Up”

Sept 2019

Led a small design and engineering team to build an art installation that explored public social media data for *Project Amelia*, an immersive theater production

## “It Pains You”

Sept 2018

Designer and director for an immersive group art piece exploring the distinction between pain and violence for Bricolage Production Company’s *Bazaar*

## FAST FACTS

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<b>Tools I Play With</b>	C, Python, C++, Java, Racket (Scheme), OpenCV, ROS, bash
<b>Courses</b>	Ethics of AI, AI for Social Good, Privacy Policy Law & Technology
<b>Research Courses</b>	Empirical Methods, Experimental Design
<b>Conferences</b>	Color of Surveillance, Out4Undergrad, Allied Media, Radical Exchange
<b>Miscs</b>	Embroidery, Conceptual Art, Cats, Community Organizing, Birdwatching

## A NOTE ON VALUES

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I am constantly striving to make my professional and personal life adhere to a strong set of values. While I often fail, and while these values are in constant flux, they are my aspirations. As a result, I rely on a set of heuristics to guide my actions, many of which are relevant to professional spheres. I do not include these guidelines to evangelize, but to add context to my professional interactions and publicly state them a tool of accountability.

### Flight Restrictions

In an effort to reduce my carbon footprint, I fly only once per year or in extraordinary circumstances.

### Funding & Labor Restrictions

As part of my commitment to domestic and global nonviolence, I avoid accepting money, resources, or collaborations from the defense, immigration enforcement, prison, and detention industries.