



Joy Carol Ming

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Research interests

HCI, ICTD, design justice, disability studies, global health equity, future of work

Education

Ph.D. student in Information Science

Cornell University

Advisors: Aditya Vashistha and Nicola Dell

Aug 2020 - present

Ithaca, NY

A.B. in Computer Science, Global Health and Health Policy

Harvard University

Honors: Graduated cum laude with high honors in field

Thesis: "#Autism Versus 299.0: Topic Model Exploration of Multimodal Autism Data"

Aug 2011 - May 2015

Cambridge, MA

Research experience

Graduate research assistant

Cornell University

Advisor: Aditya Vashistha

Aug 2020 - present

Ithaca, NY

- *Goals:* Help HCI researchers learn how to more meaningfully engage people with disabilities in their research studies to reduce response bias.
- *Methods:* Remote semi-structured interviews, systematic analysis of literature.

User researcher, software engineer

Google

Groups: Area 120, Next Billion Users, Google.org | *Mentors:* Asif Baki, Jackie Bernhelm, Jen Carter

May 2018 - Aug 2020

San Francisco, CA

- *Goals:* Explored the possibilities for the future of work to empower entrepreneurs and gig workers in the US (small businesses in Portland), Asia (jobseekers looking for service/entry-level jobs in Bangladesh, Indonesia, and India), and Africa (entrepreneurs).
- *Methods:* Design sprints, remote focus groups, A/B testing, semi-structured interviews, intercepts, international field research management/logistics, surveys.
- *Outcomes:* Research that has impacted business strategy on my own teams as well as other product teams, including Search and Maps.

Fulbright student research scholar

US-India Educational Foundation

Affiliations: Dimagi Software Innovations, Microsoft Research India | *Mentors:* Neal Lesh, Ed Cutrell

Aug 2015 - May 2016

New Delhi, India

- *Goals:* Evaluate the feasibility of a tablet app to help nurses monitor childbirth in rural India.

- *Methods*: Semi-structured interviews, participant observation, usability testing, co-design.
- *Outcomes*: A comprehensive narrative of the realities of childbirth in rural peripheral centers; policy recommendations to state health officials and hospital administrators for paper- and mobile-based tools for nurses.

Undergraduate thesis researcher

Aug 2014 - May 2015
Cambridge, MA

Harvard University

Group: Data To Actionable Knowledge | *Advisor*: Finale Doshi-Velez

- *Goals*: Understand differences between symptoms of autism spectrum disorder as seen on online medical forums and clinical medical records.
- *Methods*: Data scraping, anchor word driven topic modeling.

Visiting researcher

May 2014 - Sept 2014
Abu Dhabi, UAE

NYU Abu Dhabi

Group: Design Technology Lab | *Advisors*: Jay Chen, Azza Abouzied

- *Goals*: Design and develop cost-appropriate tools for nurses in Accra, Ghana.
- *Methods*: Semi-structured interviews, participant observation, usability testing, data analysis, system architecture and implementation, co-design.
- *Outcomes*: *printr*, a system for organizations in low-resource settings to automatically generate dynamic paper tools for data presentation and calculation tasks.

Undergraduate research assistant

Aug 2013 - May 2014
Cambridge, MA

Harvard University

Group: Care Augmenting Software Partners | *Advisor*: Barbara Grosz

Prototyped tools to help children with complex conditions log concerns and manage care plans.

Publications

Conference papers

1. Chen, Jay, Azza Abouzied, David Hutchful, **Joy Ming**, and Ishita Ghosh. "[printr: Exploring the Potential of Paper-based Tools in Low-resource Settings](#)." In Proceedings of the Eighth International Conference on Information and Communication Technologies and Development, p. 23. ACM, **2016**.
2. Ghosh, Ishita, Jay Chen, **Joy Ming**, and Azza Abouzied. "[The persistence of paper: a case study in microfinance from Ghana](#)." In Proceedings of the Seventh International Conference on Information and Communication Technologies and Development, p. 13. ACM, **2015**.

Journal articles

3. **Ming, Joy**. "[Autism in China: A Biosocial Review](#)." Journal of Global Health, **2012**.

Conference posters or workshops

4. **Ming, Joy**. "Personal Statement: A Reflection On Social Responsibility and Collective Organizing in Technology." Submission to the Collective Organizing and Social Responsibility Workshop at ACM Conference on Computer-Supported Cooperative Work and Social Computing **2020**.
5. **Ming, Joy**. "[Beyond the Partograph: Lessons from the Field on Designing Information](#)

[Communication Technologies for Childbirth in Remote Healthcare Centers in India.](#)" In Proceedings of the Eighth International Conference on Information and Communication Technologies and Development, p. 44. ACM, **2016**.

6. **Ming, Joy**, Ishita Ghosh, Jay Chen, and Azza Abouzied. "[Printing Paper Technology for Development.](#)" In Proceedings of the Fifth ACM Symposium on Computing for Development, pp. 117-118. ACM, **2014**.

Thesis

7. **Ming, Joy Carol**. "[#Autism Versus 299.0: Topic Model Exploration of Multimodal Autism Data.](#)" Undergrad dissertation, **2015**.

Service and leadership

Diversity, equity, and inclusion volunteer Aug 2020 - present
Cornell University Ithaca, NY
Groups: Graduate Students for Gender Inclusion in Computing, Broadening Participation Committee
Contributed to analysis of anti-racist calls to action in computing, organized social events.

Intern mentor May 2017 - Aug 2020
Google San Francisco, CA
Mentored a total of 8 software engineering interns (sophomores-PhD students) who were predominantly women and consulted on social impact technology career paths for other interns.

20% volunteer Jan 2017 - Aug 2020
Google San Francisco, CA
Groups: Google.org, Google for Nonprofits, Vector, Product inclusion working group
Led a 100-person design sprint with the Morehouse School of Medicine, presented epidemiological findings to representatives of the Bill and Melinda Gates Foundation.

Mentor Aug 2013 - May 2015
Harvard Women in Computer Science Cambridge, MA
Mentored 4 women in computer science, guiding them through courses, internships, opportunities.

Co-founder Aug 2012 - May 2015
Harvard College Developers for Development Cambridge, MA
Organized a 300-500 person annual hackathon (ID Hack) with MIT and Tufts student organizations, developed a network of 100+ global development organizations using technology, introduced computer science students to social impact technology through immersions, projects, and talks.

Teaching

Teaching assistant Aug 2020 - Dec 2020
Cornell University Ithaca, NY
Course: Computing and Global Development
Design and lead weekly activities and reading comprehension quizzes, guide final project development, grade activities and project proposals.

Teaching fellow Aug 2014 - Dec 2014

Harvard University
Courses: Data Science
Help students with assignments at office hours, guide groups through final project, grade activities.

Cambridge, MA

Teaching volunteer
Digital Literacy Project
Teach basic computer science concepts to middle school students in low-income neighborhoods.

Jan 2014 - May 2015
Boston, MA

Teaching fellow
Harvard University
Course: Introduction to Computer Science
Lead weekly discussion section of 12 students, help students at office hours, grade assignments.

Aug 2012 - Dec 2012
Cambridge, MA

Talks

Case studies in social impact technology
Fireside chat on imposter syndrome
Panel on social impact technology

WECode 2019
WECode 2015
WECode 2018
Grace Hopper 2014

Industry experience

Engineering practicum intern
Google
Front-end intern
Raxa, Jan Swasthya Sahyog Electronic Medical Record

May 2013 - Aug 2013
New York, NY
May 2012 - Aug 2012
New Delhi, India