

Joy Carol Ming

joy.c.ming@gmail.com | +1 (973) 634-7693 | jming.github.io | San Francisco, CA

Education

Harvard University, Cambridge, MA Class of 2015
A.B. *cum laude* with high honors in Computer Science, secondary in Global Health and Health Policy

- Thesis on topic modeling of autism symptoms from clinical data and online medical forums.
- Coursework in HCI, ML, economics/computation, multiagent systems, data science, systems and sociology, anthropology, biology, epidemiology, political economy of health in the developing world.
- Co-founder of Developers for Development and ID Hack for International Development.
- Teaching for Data Science (Fall 2014), Introduction to Programming (Fall 2012), and Digital Literacy Project (Spring 2014, Fall 2014, Spring 2015).
- Panelist on social impact tech at Harvard WECODE (March 2019, March 2018, March 2015) and Grace Hopper Celebration of Women in Computing (October 2014)

Research

Fulbright-Nehru Fellowship, New Delhi August 2015–May 2016
Student Research Scholar with Dimagi Software Innovations and Microsoft Research India

- Create a comprehensive narrative of realities of childbirth in rural peripheral centers through observations and interviews in field visits.
- Design paper-based and mobile-based tools to improve quality of care and reduce nurse burden using field observations as well as comprehensive review of existing solutions.
- Evaluate the impact and feasibility of tools for policy recommendations to scale-up.

Data To Actionable Knowledge Lab, Harvard University, Cambridge, MA Fall 2014, Spring 2015
Undergraduate Thesis Researcher with Professor Finale Doshi-Velez

- Collect data from both online medical forums and structured text from clinical medical records related to autism spectrum disorder.
- Modify anchor word driven topic model algorithm to elicit and compare the medical concept topics, or themes from both modes of data.
- Compare results from unstructured online forums and structured medical text.

Design Technology Lab, NYU Abu Dhabi, Abu Dhabi Summer 2014
Visiting Researcher with Professors Jay Chen and Azza Abouzied

- Design tangible user interfaces with visual computational feedback for low-resource settings.
- Conduct needs assessment and usability testing of the paper-based, dynamic tools with health and microfinance institutions in Accra, Ghana.
- Develop printr, a system for organizations to automatically generate paper-based, dynamic tools for data presentation and calculation tasks.

Care Augmenting Software Partners Lab, Harvard, Cambridge, MA Fall 2013, Spring 2014
Research Assistant to Professor Barbara Grosz

- Design, create, and implement Your Organizer for Doctors Appointments (YODA) to help children with complex conditions log their concerns before a doctors appointment.
- Prototype GoalKeeper, application to help manage care plans.

Joy Carol Ming

joy.c.ming@gmail.com | +1 (973) 634-7693 | jming.github.io | San Francisco, CA

Industry

Google, Mountain View and San Francisco, CA May 2018 - present
Software engineer in startups in Area 120, a workshop for Google's experimental products.

- Lead research on employability features and development on web client for application that helps connect youth with informal/service sector jobs in Asia (Bangladesh, Indonesia, India).
- Lead engineering and user research on an early stage project using a web application to connect African entrepreneurs with mentorship and funding resources in the diaspora.

Software Engineer on Chrome and Next Billion Users. July 2016 - May 2018

- Enable launch of Youtube Go with integration of offline, peer-to-peer video sharing.
- Contribute to emerging markets efforts on Chrome team, including making sure downloads is not killed on low-memory phones and enabling users to utilize/manage SD card storage.
- 20% projects with Google for Nonprofits, Google.org Tech Team, and ML epidemiology.

Google, New York, NY Summer 2013
Engineering Practicum Intern on Corporate Engineering Team

- Add capabilities to internal staffing apps using Google Web Toolkit and Java on AppEngine.
- Improve interviewer calibration by enabling the sharing and review of colleague feedback.
- Create dynamic, data-defined UI to enable richer data structures.

Raxa JSS EMR, New Delhi Summer 2012
Front-end intern for health information systems startup

- Research workflow of community health workers by interviewing administrators and health workers in rural Chhattisgarh.
- Design screens, code front-end using Sencha Touch to link OpenMRS backend with REST calls in smartphone application for CHW module of health information system.

Publications

- 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.
- 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.
- Ming, Joy Carol. "[#Autism Versus 299.0: Topic Model Exploration of Multimodal Autism Data.](#)" Undergrad diss., 2015.
- 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.
- 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.
- Ming, Joy. "[Autism in China: A Biosocial Review.](#)" J. of Global Health (2012).