

Samantha Robertson

PH.D. CANDIDATE @ U.C. BERKELEY · ELECTRICAL ENGINEERING & COMPUTER SCIENCES · HCI+AI

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Education

University of California, Berkeley

PH.D. ELECTRICAL ENGINEERING AND COMPUTER SCIENCES

- Advisors: Dr. Niloufar Salehi and Dr. Aditya Parameswaran
- Dissertation title: Building User Trust and Agency in Data Systems
- M.S. awarded May 2021

Berkeley, CA, USA

2019 - Present

M.S. ELECTRICAL ENGINEERING AND COMPUTER SCIENCES

- Advisors: Dr. Niloufar Salehi and Dr. Moritz Hardt

May 2021

Stanford University

B.S. MATHEMATICAL AND COMPUTATIONAL SCIENCES

- Degree awarded with Distinction (top 15%)

Stanford, CA, USA

June 2019

Internships

Machine Learning Research Intern, Machine Intelligence Visualization

SUPERVISED BY DR. FRED HOHMAN AND DR. MARY BETH KERY

Building interactive tools for monitoring NLP models.

Apple

May - August 2022

Research Intern, Ethical AI

SUPERVISED BY DR. MARK DÍAZ

Designed and conducted a mixed method user study to understand users' strategies for identifying and recovering from machine translation errors, and when those strategies fall short.

Google

May - Dec 2021

Publications

CONFERENCES

Samantha Robertson, and Mark Díaz. Understanding and Being Understood: User Strategies for Identifying and Recovering From Mistranslations in Machine Translation-Mediated Chat. To appear in *Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT 2022)*

Nikita Mehandru, **Samantha Robertson**, and Niloufar Salehi. Reliable and Safe Use of Machine Translation in Medical Settings. To appear in *Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT 2022)*.

Daniel J. Liebling, **Samantha Robertson**, Wesley Hanwen Deng, and Katherine Heller. Opportunities for Human-Centered Evaluation of Machine Translation Systems. To appear in *Findings of NAACL 2022*.

Samantha Robertson, Tonya Nguyen, and Niloufar Salehi. 2021. Not Another School Resource Map: Meeting Underserved Families' Information Needs Requires Trusting Relationships and Personalized Care In *Proceedings of the ACM on Human-Computer Interaction, CSCW (CSCW '22)*. 🏆 **Recognized for contribution to Diversity and Inclusion.**

Samantha Robertson, Tonya Nguyen, and Niloufar Salehi. 2021. Modeling Assumptions Clash with the Real World: Transparency, Equity, and Community Challenges for Student Assignment Algorithms. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21)*.

Pavan Mehrotra, Sabar Dasgupta, **Samantha Robertson**, and Paul Nuyujukian. 2018. An open-source realtime computational platform (short WIP paper). In *Proceedings of the 19th ACM SIGPLAN/SIGBED International Conference on Languages, Compilers, and Tools for Embedded Systems (LCTES 2018)*.

WORKSHOPS

Samantha Robertson, Kim Harley, and Niloufar Salehi. 2022. Engaging Research Participants with Self-Logged Menstrual Health Data. *Workshop on Human-in-the-Loop Data Analytics (HILDA)*, co-located with *SIGMOD 2022*

Wesley Hanwen Deng, Nikita Mehandru, **Samantha Robertson**, and Niloufar Salehi. 2022. Beyond General Purpose Machine Translation: The Need for Context-specific Empirical Research to Design for Appropriate User Trust. *Workshop on Trust and Reliance in AI-Human Teams*, at CHI 2022

Samantha Robertson, Wesley Hanwen Deng, Timnit Gebru, Margaret Mitchell, Daniel J. Liebling, Michal Lahav, Katherine Heller, Mark Díaz, Samy Bengio, and Niloufar Salehi. 2021. Three Directions for the Design of Human-Centered Machine Translation. *HCI + NLP Workshop at EACL '21*

Samantha Robertson, Tonya Nguyen, and Niloufar Salehi. 2020. Modeling Assumptions Clash with the Real World: Configuring Student Assignment Algorithms to Serve Community Needs. *4th Workshop on Mechanism Design for Social Good (MD4SG '20)*. 🏆 **Best “New Horizons” Paper.**

Samantha Robertson and Niloufar Salehi. 2020. What if I Don’t Like Any of the Choices? The Limits of Preference Elicitation for Participatory Algorithm Design. *Workshop on Participatory Approaches to Machine Learning at ICML '20*

PRE-PRINTS

Samantha Robertson*, Zijie J. Wang*, Mary Beth Kery, Dominik Moritz, and Fred Hohman. ANGLER: Helping Machine Translation Practitioners Prioritize Model Improvements.

Samantha Robertson, Tonya Nguyen, Kathy Hu, Afshin Nikzad, Catherine Albiston, and Niloufar Salehi. Preference Elicitation as Participation in Algorithmic Decision-Making.

Awards & Fellowships

2020 **Honorable Mention, Graduate Research Fellowship Program**, NSF

2019 **EECS Excellence Award**, U.C. Berkeley Electrical Engineering & Computer Sciences
Elected to Phi Beta Kappa, Stanford University
J.E. Wallace Sterling Award for Academic Achievement, Stanford University, *Awarded to 25 graduating students in the Stanford School of Humanities and Sciences*

Invited Talks

Extracting and exploring patterns in text data

Spring '22 **Guest Lecture, Investigative Watchdog Reporting**, Stanford University

Transparency, Equity, and Community Challenges for Student Assignment Algorithms

Spring '21 **Invited Talk, Center for Applied Data Ethics Speaker Series**, University of San Francisco
Guest Lecture, Algorithms & Society, University of Michigan

Fall '20 **Guest Lecture, Market Design and Resource Allocation in Non-Profit Settings**, Stanford University

Teaching

Fall 2020 **AI for Medicine and Health Policy**, Teaching Assistant, U.C. Berkeley

Spring 2019 **Data Challenge Lab**, Teaching Assistant, Stanford University

Skills

Languages **R, Python, SQL**, C, C++, HTML/CSS, Java, Javascript

Tools & Packages Git, Unix, Tidyverse, Jupyter, \LaTeX , MongoDB, PyTorch, SciKit-Learn, Qt

Data Visualization ggplot2, Shiny, seaborn, matplotlib

Research Methods Interviews, Surveys, Experiment Design, Qualitative Analysis, Exploratory Data Analysis, Applied ML