

# Samantha Dalal

## Community-Based HCI Researcher

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### SUMMARY

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My research identifies how digital entrepreneurs navigate, construct, and maintain socio-technical systems integral to their work routines. I specialize in **community-based approaches** to support workers' documentation of their existing working conditions and engage workers in the **participatory design** of more equitable work systems.

#### Research Skills

##### Qualitative

Participatory design, user research, ethnographic methods, workshop facilitation, digital ethnography, prototyping, speculative design, narrative analysis, project management

##### Quantitative

Applied machine learning with scikit-learn, network analysis w/networkx & Gephi, NLP modeling w/BERT, causal inference, data visualization w/seaborn library, large scale data manipulation w/Apache Spark, regression analysis, Python, R, SQL

### EDUCATION

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**University of Colorado**  
*PhD, Information Science*  
Advisor: Brian Keegan

Boulder, CO  
2020 – present

**University of California – Santa Barbara (UCSB)**  
*BA, Statistics*  
*BA, Economics*

Santa Barbara, CA  
2019

### ACADEMIC PUBLICATIONS

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#### Peer-Reviewed Conference

##### Papers

Simpson, E., **Dalal, S.** and Semaan, B. "Hey, Can You Add Captions?": Infrastructuring for Accessibility on TikTok. In *Proceedings of 2022 Conference on Computer Supported Cooperative Work (CSCW)* (2023)

**Dalal, S.**, Chiem, N., Karbassi, N, Li, Y. and Monroy-Hernandez, A. Understanding Human Intervention in the Platform Economy: A case study of an indie food delivery platform. *Proceedings of 2023 Conference on Computer Human Interaction (CHI)* (2023)

Conference Posters, Talks, Workshop Papers

**Dalal, Samantha.** Calacci, Dan. Spitzberg, Danny. Monroy-Hernandez, Andrés.. FairFare: Towards crowdsourced algorithmic inquiry in the gig economy. *Workshop paper for Back to “Back to Labor” Workshop at CSCW ‘23* [workshop paper](#)

**Dalal, Samantha.** Keegan, Brian. Governing the Commons of Platform Labor Data Assets. *Position paper for Civic Technologies: Research, Practice, and Open Challenges Workshop at CSCW ‘20* <https://cscwcivictchnologies.wordpress.com/papers/>

### Grant Proposals

**Dalal, Samantha.** [Who’s Driving the Rideshare Economy: Developing Worker-Centered Data Narratives](#). Proposal to The University of Colorado Engage Program. 16 April 2021

## RESEARCH EXPERIENCE

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### Doctoral Researcher

*The Workers Observatory: a site for end-user audits of gig platforms* Oct 2022 - Present

- Project manager in charge of day-to-day operations, overseeing \$50k budget, coordinating UX and engineering workflows, and developing external partnerships
- Lead community-based researcher overseeing initiatives to engage worker organizations in citizen-science efforts

*Migrant Sociotechnical Resilience: Experiences with Digitally Mediated Gig Labor* Aug 2023 - Present

- Conducting a multi-stakeholder qualitative study to identify how gig work platforms become embedded in migrant workers’ labor market trajectories
- Managing a multi-lingual research team to conduct interviews in gig workers’ native languages

*Everyday Bossware: Examining the scope and impact of mobile device management software at work* May 2022 - Present

- Utilizing interview methods and content analysis to identify how mobile device management softwares shape worker perceptions of privacy in the workplace

*Gender Identity in the Gig Workforce: A mixed methods analysis of identity management and presentation in platform-mediated work* May 2023 - Present

- Using NLP, surveys, and interviews to investigate how platforms conceptualize identity at work and how workers’ experiences are impacted by platform policies and infrastructures

*Explainable AI for Predictive Maintenance* Aug 2020 - Jan 2021

- Conducted semi-structured interviews and utilized thematic analysis to prototype wireframes with XAI interventions that prioritized preserving workers’ sense of agency in the workplace.
- Delivered report on XAI for predictive maintenance to Department of Defense

## Public Policy Researcher

### *Developing Data Narratives with Denver Rideshare Drivers*

Jan 2022 -  
July 2022

- Designed, proposed, and executed research project to understand how technology, in the form of platform data cooperatives, can be used to support worker organizing efforts.
- Implemented a wage study, demographic survey, and interviews to recount the stories of the rideshare driver community through data they create and own.
- Published results in Jobs with Justice Fall 2022 newsletter

## PROFESSIONAL EXPERIENCE

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### **Social Media Collective (SMC) @ Microsoft Research New England**

Cambridge, MA  
May - Aug 2023

#### *Research Intern*

- Designed and executed qualitative research study of 10 small businesses to analyze sociotechnical systems underlying platform mediated entrepreneurship

### **Center for Information and Technology Policy (CITP) @ Princeton**

Princeton, NJ  
May - Aug 2022

#### *Research Contractor*

- Designed and executed 2-day multistakeholder participatory workshop with 37 attendees on developing solutions for food delivery systems
- Developed and led six problem finding and user design exercises in Miro during the workshop
- First author on internal findings report and CHI case study report relating to workshop

### **Black Swan**

Lake Forest, CA  
Jan - July 2020

#### *Data Science Intern*

- Led design and deployment of internal dashboards to track KPIs for consulting team
- Maintained and updated documentation and ReadMe files for internal dashboards on company Gitlab
- Developed, tested, and deployed improvements to existing ETL sentiment analysis & report generation infrastructure to streamline consulting team's workflow using Twitter Firehose, PySpark, Gephi, and DataBricks
- Implemented BERT NLP model with Apache Spark for sentiment detection and entity recognition to build graphical representation of millions of Twitter conversations

### **Genentech**

San Francisco, CA  
Jun - Sep 2018

#### *Neighborhood Work Environments (NWE) Intern*

- Led effort to move KPI tracking for work environments team from

- spreadsheet format to live Google Data Studio dashboards
- Developed and maintained documentation for dashboards to on-board team members

## TEACHING EXPERIENCE

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### University of Colorado, Boulder

*Instructor of Record (GPTI)*

- INFO 1301: Introduction to Statistics for Information Science
  - ◆ Built out 15-week curriculum covering data types, hypothesis testing, and OLS

Boulder, CO  
Spring 2024, Fall 2023

### University of Colorado, Boulder

*Instructor of Record (GPTI)*

- INFO 4601: Technology Ethics & Policy
  - ◆ Built out 5-week curriculum covering ethical foundations, free speech & content moderation, digital privacy, and bias & fairness in ML

Boulder, CO  
Summer 2022

### University of Colorado, Boulder

*Graduate Teaching Assistant*

- INFO 1101: Computational Thinking - Intro to Python programming
- INFO 3402: Information Exposition - Data visualization in Python

Boulder, CO  
Fall 2020  
Spring 2022

### Guest Lectures

- CSU Mines: Special Topics in Computer Science - Fall 2023
  - ◆ Lecture on platform-mediated work
- CU Boulder: Portfolio and Professional Development - Fall 2023
  - ◆ Panel on getting and working in industry internships
- CU Boulder: Applied Machine Learning - Fall 2022
  - ◆ Lecture on cybersecurity implications for ML
- CU Boulder: Quantitative Reasoning - Fall 2021
  - ◆ Lecture on cybersecurity & permutations
- CU Boulder: Writing for Computer Science - Fall 2021
  - ◆ Lecture on ethical considerations in CS research & citational justice
- CU Boulder: Recent Advances in Computer Vision - Fall 2021
  - ◆ Lecture on cybersecurity risks in computer vision research

## SERVICE and AWARDS

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### Awards

University of Colorado Boulder Center to Advance Research and Teaching in the Social Sciences Grant (\$4,000) - CU Boulder - 2023

- Won competitive campus-wide grant to conduct qualitative research study on the role of digital labor platforms in migrant workers' labor market trajectories

Mozilla Technology Fund AI Audit Grant (\$50,000) - CU Boulder - 2022

- Won competitive nation-wide grant to build and deploy crowdsourced end-user audit system and corresponding governance layer to provide transparency into blackbox payment algorithms

Community Based Research Fellowship (\$8,000) - CU Boulder - 2021

- Won competitive campus-wide fellowship to develop data narratives and understand domestication of algorithmic work with local Colorado rideshare & delivery drivers

Information Science Department Outstanding Community Service Award - 2021

- Recognized by department faculty for outstanding record of service work

### **Department of Information Science Graduate Student Association**

President, 2021-2022

Treasurer, 2020-2021

### **Princeton Center for Information and Technology Policy - Tech & Labor Reading Group**

Lead facilitator, Jan 2022 - Present