

Dr. Samantha Dalal

sd3765@princeton.edu
www.samantha-dalal.com

HCI Researcher | Designing tools and policy for a human-centered future of work

Education

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| 2022 - 2025 | Ph.D. in Information Science University of Colorado Boulder, Boulder, CO Ph.D. in Information Science <i>Advisor:</i> Brian Keegan |
| 2020 - 2022 | M.S in Information Science University of Colorado Boulder, Boulder, CO <i>Advisor:</i> Brian Keegan |
| 2015 - 2019 | B.A in Statistics, B.A in Economics University of California Santa Barbara (UCSB), Santa Barbara, CA |

Selected Professional Experience

Post-doctoral Research Fellow – Princeton Center for Information and Technology Policy
September 2025 – Present, Princeton, NJ

- *Lead cross-functional summit with 25 stakeholders from labor unions, policy agencies, academia, and enforcement to establish algorithmic management regulation frameworks*
- *Deploy causal inference models in production to quantify pricing transparency impacts on gig worker compensation systems*
- *Design and implement mixed-methods evaluation framework leveraging LLMs for systematic qualitative analysis of worker fairness definitions in AI-mediated platforms*
- *Drive independent research agenda on accountability infrastructures for algorithmic technologies in local government systems*

Human-Computer Interaction research intern – Microsoft Research (Teachable AI Experiences)
May - Aug 2024, Cambridge, UK

- *Co-authored 3 publications on aligning GenAI evaluation criteria with end-user harm and safety definitions, collaborating across research, engineering, and product teams*
- *Designed and executed participatory evaluation study (N=15) to integrate disability community perspectives into generative AI model development and assessment workflows*
- *Built and deployed platform for participatory data stewardship in GenAI models, working with research engineers to ensure production-ready safety monitoring capabilities*
- *Presented safety and alignment findings to Microsoft Research leadership and cross-functional accessibility teams*

Socio-technical systems research intern – Microsoft Research (Social Media Collective)

May - Aug 2023, Cambridge, MA

- *Designed and implemented a 3-month-long ethnographic study of 10 small businesses to investigate the use of digital platforms in supporting entrepreneurship*

Organizer & Data Analyst – Colorado Independent Drivers United (CWA 7777)

May 2024 - May 2025, Boulder, CO

- Led data analytics pipeline processing 50,000+ ridehail trips to inform successful passage of 2 Colorado AI transparency and worker protection bills
- Collaborated with legal, policy, and advocacy teams to translate algorithmic impact assessments into actionable legislative recommendations
- Testified in committee hearings and provided technical expertise on algorithmic fairness and transparency regulations

Co-founder & COO – Workers Algorithm Observatory

November 2022 – Present, Boulder, CO

- *Co-founded cross-institutional research organization focused on community-led algorithmic accountability and safety assessment*
- *Managed interdisciplinary team of 5 (data engineers, researchers, organizers) to design and deploy production-scale auditing tools for black-box algorithmic systems*
- *Built platform serving 800+ users with 4M+ data points for real-time monitoring of rideshare payment algorithms, enabling continuous safety and fairness evaluation*
- *Established 4 external partnerships across academic and policy organizations to drive responsible AI research and regulation initiatives*
- *Supported community partners in successful legislative campaigns resulting in 2 bills signed into law on algorithmic transparency*

Doctoral Researcher – University of Colorado Boulder

Aug 2020 – June 2025, Boulder, CO

- *Consulted on and successfully advocated for two Colorado State Legislature bills (SB24-075, HB24-1129) addressing algorithmic fairness and transparency in gig work platforms*
- *Designed and published 3 peer-reviewed studies on AI system safety and worker well-being at top-tier venues (CSCW & CHI)*
- *Secured \$58k in competitive funding for community-based research and technical tool development supporting algorithmic audits*
- *Led mentorship of 5 students resulting in publications on responsible AI system evaluation and deployment*
- *Independently managed 5 multi-year research projects resulting in 9 publications on algorithmic fairness, safety, and accountability*

Peer-Reviewed Publications

In information science, top-tier conferences in human-computer interaction and computer-supported cooperative work are considered premiere, selective venues for archival research. Therefore, the majority of my peer-reviewed publications are conference papers.

Note: [†] indicates a paper is under review, * indicates equal contribution

- P1  **Best Paper Honorable Mention**
The World Wide Recipe: A community-centred framework for fine-grained data collection and regional bias operationalisation
Magomere, J., Ishida, S., Afonja, T., Salama, A., Kochin, D., Yuehgoh, F., Hamzaoui, I., Sefala, R., Alaagib, A., **Dalal, S.**, Marchegiani, B., Semoenova, E., Crais, L., Mackenzie Hall, S.
The ACM Conference on Fairness, Accountability, and Transparency (FAccT) (2025)
Proposes a methodology for community-centered collection of cultural data and T2I model evaluation
- P2 **↑Towards a Community-Centric Approach to Measuring Cultural Representation in AI Image Generation: Lessons from Two Case Studies**
Johnson, N., Sudharsan, S*., Hamna*., **Dalal, S.**, Holroyd, T., Thieme, A., Heidari, H., Massiceti, D., Wortman Vaughan, J., Morrison, C.
ACM Conference on Computer Human Interaction (CHI) (2026)
Designs and tests a method for operationalizing community participation in developing evaluation metrics for GenAI outputs
- P3 **↑Position: To Make Text-to-Image Models that Work for Marginalized Communities, We Need New Measurement Practices for the Long Tail**
Johnson, N., Sudharsan, S*., Hamna*., **Dalal, S.**, Holroyd, T., Thieme, A., Heidari, H., Massiceti, D., Wortman Vaughan, J., Morrison, C.
NeurIPS Position Paper Track (NeurIPS) (2025)
Argues for novel measurement practices for under-represented communities in GenAI training datasets
- P4 **The Human Labour of Data Work: Capturing Cultural Diversity through World Wide Dishes**
Dalal, S*., Mackenzie Hall, S*., Afonja, T., Sefala, R., Salama, A., Hamzaoui, I., Ishida, S., Magomere, J., Alaagib, A., Yuehgoh, F., Crais, L.
Computer Supported Cooperative Work (CSCW) (2025)
Investigates the invisible labor of participatory design in constructing cultural datasets for machine learning
- P5 **Rideshare Transparency: Translating Gig Worker Insights on AI Platform Design to Policy**
Rao, V., **Dalal, S.**, Aagarwal, E., Calacci, D., and Monroy-Hernandez, A.
Computer Supported Cooperative Work (CSCW) (2025)
Investigates how rideshare drivers navigate opacity in labor platforms to inform data disclosure policy efforts
- P6 **FairFare: A Tool for Crowdsourcing Rideshare Worker Data to Empower Labor Organizers and Influence Policy**
Dalal, S*., Calacci, D*., Rao, V*., Di, C., Pua, K., Schwartz, A., and Monroy-Hernandez, A.
ACM Transactions on Computer Human Interaction (TOCHI) (2025)
Designed and deployed a system to support crowdsourced audits of algorithmic pay systems for rideshare workers
- P7 **↑FareShare: A Tool for Labor Organizers to Estimate Lost Wages and Contest Arbitrary AI and Algorithmic Deactivations**
Rao, V., Dalal, S., Calacci, D., Schwartz, A., Liaqat, A., Monroy-Hernández, A.
Conference on Computer Support Cooperative Work (CSCW) (2026)
- P8 **QuaLLM: An LLM-based Framework to Extract Qualitative Insights from Online Forums.**
Rao, V., Agarwal, E., **Dalal, S.**, Calacci, D., Monroy-Hernandez, A.

Association of Computational Linguistics (NAACL)(2025)

- P9 **Passwords and Python: Introducing Security Concepts in Lower-Division Programming**
Fiesler, C., **Dalal, S.**, Paup, J.
EngageCSEdu 2023
Designed class activities for undergraduate computing students to learn security concepts
- P10 **Understanding Human Intervention in the Platform Economy: A case study of an indie food delivery platform**
Dalal, S., Chiem, N., Karbassi, N., Li, Y. and Monroy-Hernandez, A.
ACM Conference on Computer Human Interaction (CHI) (2023)
Critical analysis of the role of design interventions in platform economy research
- P11 **"Hey, Can You Add Captions?": Infrastructuring for Accessibility on TikTok**
Simpson, E., **Dalal, S.** and Semaan, B
Conference on Computer Supported Cooperative Work (CSCW) (2023)
Investigates role of bottom-up infrastructuring in making social media platforms more accessible

Workshop and Case Study Papers

Lightly peer-reviewed papers that contribute to conference workshops.

- W1 **Provocation: Who Benefits From Inclusion in Generative AI?**
Dalal, S., Mackenzie Hall, S., Johnson, N.
Position paper for Evaluating Evaluations workshop at NEURIPS 2024
Critically interrogated existing rationales for and practices of participatory evaluation of algorithmic impact
- W2 **Worker Data Collectives as a means to Improve Accountability, Combat Surveillance and Reduce Inequalities**
Hsieh, J., Zhang, A., Kim, S., Rao, V., **Dalal, S.**, Mateescu, A., Grohmann, R., Eslami, M., Lee, M., Zhu, H.
Extended Abstracts of the 2024 CSCW Conference Computer Supported Cooperative Work (CSCW EA '24)
Co-organized workshop on data collectives as a means for worker power
- W3 **Governing the Commons of Platform Labor Data Assets**
Dalal, S., Keegan, B.
Position Paper for Civic Technologies: Research, Practice, and Open Challenges Workshop at CSCW '20
Put forth recommendations for managing platform workers' data assets

Magazine Articles

- M1 **Lessons from Workers' Inquiry: A Sociotechnical Approach to Audits of Algorithmic Management Systems**
S. Dalal (2024)
ACM XRDS: ACM Crossroads Magazine

Grants and Awards (Total Amount: \$63,750)

*Note: Grants I served as a Co-PI on are denoted with a * and are listed in descending order; Fellowships are denoted with a †*

- A1 ***Mozilla Technology Fund AI Audit Grant**, Nov 2022
 Amount: \$50,000
 Funded Project: The Workers Algorithm Observatory: An infrastructure for supporting worker-led algorithmic accountability
- A2 **†CU Boulder Community Based Research Fellowship**, Aug 2021
 Amount: \$8,000
- A3 ***CU Boulder CARTSS Research Grant**, Dec 2023
 Amount: \$4,000
 Funded Project: Migrant Sociotechnical Resilience: Experiences with Digitally Mediated Gig Labor
- A4 **CU Boulder Beverly Sears Graduate Student Grant**, Jan 2024
 Amount: \$1,000
 Funded Project: Designing for inclusion of diverse gender identities in platform-mediated work
- A5 **CU Boulder Graduate School Travel Grant**, June 2024
 Amount: \$750
- A6 **CU Boulder InfoSci Department Outstanding Community Service Award**, May 2024

Teaching Experience

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| Spring 2024 | Instructor of Record, CU Boulder, Department of Information Science INFO 1301: Introduction to Statistics for Information Science |
| Fall 2023 | Instructor of Record, CU Boulder, Department of Information Science INFO 1301: Introduction to Statistics for Information Science |
| Summer 2022 | Instructor of Record, CU Boulder, Department of Information Science INFO 4601: Technology Ethics & Policy |
| Spring 2022 | Graduate Teaching Assistant, CU Boulder, Department of Information Science INFO 3402: Information Exposition – Data visualization in Python |

Mentorship Experience

Mentored four undergraduates and two masters students at Princeton University (CHI'23 Nosh paper; ToCHI'25 FairFare paper)

Service

Department Service

Graduate Student Association President, 2021-2022
Graduate Student Association Treasurer, 2020-2021

Community Service

Volunteer, Colorado Independent Drivers United Deactivation Clinic, 2024-Present

Peer-Reviewing

CSCW 2021 (1); CSCW Posters and LBW 2022 (2); CSCW 2023 (1); CHI 2023 (1); DIS 2024 (1);
CSCW 2025 Oct Cycle (2); CSCW 2025 July Cycle (2); CHI 2025 (3); CHI LBW Area Chair (10);
FAccT 2025 (4)