Jessie J. Smith

Responsible AI • ML Fairness • Harm Mitigation • UX • Data Science

🔗 Portfolio | 🔗 LinkedIn | 🔗 GitHub | 🔗 Google Scholar | 🔗 Twitter/X

Education

University of Colorado Boulder (CU Boulder) | Doctor of Philosophy (PhD)

Information Science

August 2019 - January 2025

PhD Committee: <u>Casey Fiesler</u> (CU Boulder), <u>Robin Burke</u> (CU Boulder), <u>Jed Brubaker</u> (CU Boulder), <u>Jennifer Wortman Vaughan</u> (Microsoft Research), <u>Michael Madaio</u> (Google Research)

Focused on scoping, defining, measuring, and operationalizing fairness for ML systems; translated stakeholder needs into ML algorithm and platform design; and created resources to help ML practitioners identify and mitigate harms for generative AI and recommender systems.

University of Colorado Boulder (CU Boulder) | Master of Science (MS)

Information Science August 2019 - June 2022

California Polytechnic State University (Cal Poly) | Bachelor of Science (BS)

Software Engineering September 2014 - December 2018

Industry and Professional Experience	
Spotify Data Scientist, Trust & Safety	2025 - Present
Adobe Generative AI Harm & Bias Evaluation Consultant	2024 - 2025
Allen Institute for AI AI Ethics & Society Research Consultant	2023 - 2025
Spotify Algorithmic Impact & Harm Research Intern	Summer 2022
Apple Machine Learning Robustness Analysis Intern	Spring 2022
Microsoft Research FATE (Al/ML Ethics) Research Intern	Summer 2021
Ethical Intelligence Co AI Ethics Expert and Consultant	2020 - 2023

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The Radical Al Podcast Co-Host and Co-Founder	2020 - 2023
IEEE Standards Association AI Ethics Podcaster	2020 - 2022
DataPico Colombia Data Science and Government Data Intern	Summer 2019
GoDaddy Software Engineering Intern (backend)	Summer 2018
GoDaddy Software Engineering Intern (frontend)	Summer 2017

Research Experience	
Google Research PhD Research Fellow	2022 - 2025
CU Boulder Researcher, <u>Internet Rules Lab</u>	2019 - 2025
CU Boulder Researcher, <u>That Recommender Systems Lab</u>	2019 - 2025
CU Boulder Research Assistant, Human-Centered Explainable Al	Spring 2021
Cal Poly Machine Learning Ethics Researcher, Data Science	2018 - 2019
Cal Poly Research Assistant, Ethics and Emerging Sciences Lab	2018 - 2019

Honors and Awards	
Best Paper Award ACM Fairness, Accountability, and Transparency (FAccT) Conference	2024
Computer Science PhD Fellowship Google Research	2022 - 2025
Graduate School Travel Grant CU Boulder	2023, 2024
CMCI Research Funds CU Boulder	2023
Graduate Student Outreach Award CU Boulder	2021
Finalist, Tech Ethics Competition Wolf Law School	2020
Activities Fund Research Grant ACM SIGAI	2020

Peer-Reviewed Publications

Full Papers

Submitted, Under Review: **Jessie J. Smith**, Michael Madaio, Robin Burke, and Casey Fiesler. 2025. Pragmatic Fairness: Evaluating ML Fairness Within the Constraints of Industry. *Submitted for review at FAccT ' 25: ACM Conference on Fairness, Accountability and Transparency, June 23-26, Athens, Greece. ACM New York, NY, USA.*

Best Paper Award: **Jessie J. Smith**, Aishwarya Satwani, Robin Burke, and Casey Fiesler. 2024. Recommend Me? Designing Fairness Metrics with Providers. In FAccT '24: ACM Conference on Fairness, Accountability and Transparency, June 03–06, 2024, Rio de Janeiro, Brazil. ACM, New York, NY, USA, 17 pages.

Jessie J. Smith and Anas Buhayh, Anushka Kathait, Pradeep Ragothaman, Nicholas Mattei, Robin Burke, and Amy Voida. 2023. The Many Faces of Fairness: Exploring the Institutional Logics of Multistakeholder Microlending Recommendation. In FAccT '23: ACM Conference on Fairness, Accountability and Transparency, June 12–15, 2023, Chicago, IL. ACM, New York, NY, USA, 17 pages.

Jessie J. Smith, Lex Beattie, Henriette Cramer. 2023. Scoping Fairness Objectives and Identifying Fairness Metrics for Recommendation: The Practitioners' Perspective. The International World Wide Web Conference (WWW '23), April 30 – May 4, 2023, Austin, Texas, USA.

Jessie J. Smith, Blakeley H. Payne, Shamika Klassen, Dylan Thomas Doyle, Casey Fiesler. 2023. Incorporating Ethics in Computing Courses: Barriers, Support, and Perspectives from Educators. The Technical Symposium on Computer Science Education (SIGCSE TS '23), March 15 – 18, 2023, Toronto, Ontario, Canada.

Jessie J. Smith, Saleema Amershi, Solon Barocas, Hanna Wallach, Jennifer Wortman Vaughan. REAL ML: Recognizing, Exploring, and Articulating Limitations of Machine Learning Research. In Proceedings of the ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT). June 21 – 24, 2022, Seoul, South Korea.

Nasim Sonboli and **Jessie J. Smith**, Florencia Cabral Berenfus, Robin Burke, and Casey Fiesler. 2021. Fairness and Transparency in Recommendation: The Users' Perspective. In Proceedings of the 29th ACM Conference on User Modeling, Adaptation and Personalization (UMAP '21), June 21–25, 2021, Utrecht, Netherlands. ACM, New York, NY, USA, 6 pages.

Casey Fiesler, Solon Barocas, Augustin Chaintreau, **Jessie J. Smith**, Michael Zimmer. 2021. A Crash Course in Motivating, Supporting and Expanding Ethical Thinking in the Tech Classroom. Tutorial at the Proceedings of the ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT), March 3-10, 2021, Virtual Conference.

Casey Fiesler, Mikhaila Friske, Natalie Garrett, Felix Muzny, **Jessie J. Smith**, and Jason Zietz. 2021. Integrating Ethics into Introductory Programming Classes. In Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE '21), March 13–20, 2021, Virtual Event, USA. ACM, New York, NY, USA, 7 pages.

Vito Walter Anelli, Amra Delić, Gabriele Sottocornola, **Jessie J. Smith**, Nazareno Andrade, Luca Belli, Michael Bronstein, Akshay Gupta, Sofia Ira Ktena, Alexandre Lung-Yut-Fong, Frank Portman, Alykhan Tejani, Yuanpu Xie, Xiao Zhu, and Wenzhe Shi. 2020. RecSys 2020 Challenge Workshop: Engagement Prediction on Twitter's Home Timeline. In Fourteenth ACM Conference on Recommender Systems (RecSys '20). Association for Computing Machinery, New York, NY, USA, 623–627.

Mansoury, Masoud, Himan Abdollahpouri, **Jessie J. Smith**, Arman Dehpanah, Mykola Pechenizkiy, and Bamshad Mobasher. "Investigating potential factors associated with gender discrimination in collaborative recommender systems." In The thirty-third international flairs conference. 2020.

Workshops / Small Papers

Jessie J. Smith, Lex Beattie. 2022. RecSys Fairness Metrics: Many to Use But Which One to Choose? In FAccTRec Workshop at Sixteenth ACM Conference on Recommender Systems (RecSys '22), September 18-23, 2022, Seattle, WA, USA. ACM, NY, USA.

Jessie J. Smith, Lucia Jayne, and Robin Burke. 2022. Recommender Systems and Algorithmic Hate. Late Breaking Results. In Sixteenth ACM Conference on Recommender Systems (RecSys '22), September 18–23, 2022, Seattle, WA, USA. ACM, New York, NY, USA, 6 pages.

Jessie J. Smith. 2022. Developing a Human-Centered Framework for Transparency in Fairness-Aware Recommender Systems. Doctoral Symposium. In Sixteenth ACM Conference on Recommender Systems (RecSys '22), September 18–23, 2022, Seattle, WA, USA. ACM, New York, NY, USA, 2 pages.

Dylan Doyle-Burke and **Jessie J. Smith**. "What is Radical AI? Towards a Common Definition and our Collective Liberation." Nov. 2020. Resistance AI Workshop at the Proceedings of NeurIPS 2020.

Jessie J. Smith, Nasim Sonboli, Casey Fiesler, Robin Burke. "Exploring User Opinions of Fairness in Recommender Systems." ArXiv:2003.06461 [Cs], Mar. 2020. arXiv.org, http://arxiv.org/abs/2003.06461 Fair and Responsible AI Workshop at CHI 2020.

Pinter, Anthony T., Jacob M. Paul, **Jessie J. Smith**, and Jed R. Brubaker. "P4kxspotify: A dataset of pitchfork music reviews and spotify musical features." In Proceedings of the International AAAI Conference on Web and Social Media, vol. 14, pp. 895-902. 2020.

Teaching Experience

Instructor of Record

Adjunct Instructor INFO 1301: Statistics for Information Science <i>University of Colorado Boulder</i>	Fall 2023
Adjunct Instructor INFO 2001/4001: Information Science Portfolio and Professional Development <i>University of Colorado Boulder</i>	Spring 2023
Instructor Data Ethics Modules: The Data Lab <i>University of Edinburgh</i>	Spring 2023
Adjunct Instructor INFO 1201: Computational Reasoning 1 - Expression and Media Transformation <i>University of Colorado Boulder</i>	Summer 2020
Guest Lectures and Teaching Assistant Roles	
Guest Lecture Designing Fairness with Impacted Stakeholders CSCI 2925W: Critical Data and Machine Learning Studies <i>Brown University</i>	Fall 2024
Guest Lecture Fairness in Machine Learning and Al INFO 5601: Information Ethics and Policy <i>University of Colorado Boulder</i>	Fall 2024
Guest Lecture The Basics of Machine Learning Fairness INFO 5871: Special Topics: Machine Learning Fairness <i>University of Colorado Boulder</i>	Fall 2024
Guest Lecturer NLP, LLM & Generative Al Ethics AHUM 1825: Interdisciplinary Data Science for All University of Colorado Boulder	Fall 2023
Guest Lecture Fairness in Machine Learning and Al	Fall 2023

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Guest Lecture Data Privacy and Contextual Integrity	Spring 2018
Guest Lecture Machine Learning Fairness Data Science Club <i>California Polytechnic State University</i>	Spring 2018
Teaching Assistant INFO 1201: Computational Reasoning 1: Expression and Media Transformation <i>University of Colorado Boulder</i>	Fall 2019
Teaching Assistant INFO 2201: Computational Reasoning 2: Representations of Data <i>University of Colorado Boulder</i>	Spring 2020
Teaching Assistant INFO 1111: Introduction to Information Science: Understanding the World Through Data <i>University of Colorado Boulder</i>	Fall 2020
Guest Lecturer & Grader Fairness in Machine Learning and AI INFO 4601/5601: Information Ethics & Policy University of Colorado Boulder	Fall 2021
Guest Lecture: Fairness in Machine Learning and Al INFO 4601: Information Ethics & Policy <i>University of Colorado Boulder</i>	Fall 2022
Guest Lecture Data Ethics INFO 5601: Information Ethics & Policy <i>University of Colorado Boulder</i>	Spring 2023
Guest Lecture Fairness in Machine Learning and Al INFO 5601: Information Ethics & Policy <i>University of Colorado Boulder</i>	Spring 2023
Guest Lecture Fairness in Recommender Systems INFO 5612: Recommender Systems <i>University of Colorado Boulder</i>	Fall 2023
INFO 5601: Information Ethics and Policy <i>University of Colorado Boulder</i>	

CPE 300: Professional Responsibilities (Computer Ethics) *California Polytechnic State University*

Academic Service Positions	
Organizing Committee Virtual Co-Chair ACM FAccT Conference	2025
Student Volunteer ACM FAccT Conference	2023
Graduate Student Association (GSA) Board Member Information Science Department at CU Boulder	2022 - 2023
Graduate Student Association (GSA) President Information Science Department at CU Boulder	2020 - 2021
Academic Chair RecSys 2020 Challenge ACM RecSys Conference	2019 - 2020
Student Volunteer ACM FAccT (FAT*) Conference	2020
Student Volunteer ACM RecSys Conference	2019

Paper Reviewing	
FAccT (PC Member)	2025
CHI, FAccT (<i>PC Member</i>), JASIST	2024
RecSys (<i>PC Member</i>), JASIST, FAccT (<i>PC Member</i>), CSCW, Journal for Responsible Computing	2023
CSCW	2022
Big Data and Society, CSCW, CHI, IDC, RecSys (PC Member)	2021
CSCW	2020

Invited Talks and Panels	
Designing Responsible AI With Impacted Stakeholders <i>Invited Talk</i> Sony AI	2024
The Generative Al Ethics Playbook <i>Invited Talk</i> The Gates Foundation	2024
Fairness frameworks and logics in recommendation systems Invited Talk Diversity, Explainability, Fairness in information retrieval, recommendation, and search systems (DEFirst Reading Group)	2024
Preparing for a career in AI and ML <i>Invited Talk</i> University of Minnesota	2023
Artificial Intelligence: What Our Future Holds <i>Invited Panelist</i> 2nd Annual Community College Data Science Conference	2023
Algorithmic Fairness 101 <i>Invited Talk</i> Data Science Team Companion Course	2022
Computer Science Ethics as a Career <i>Invited Talk</i> Hathaway Brown High School for Women in STEM	2022
My Journey into CS Ethics and Why this Field is so Important <i>Invited Webinar Speaker</i> National Center for Women and Information Technology (NCWIT)	2021
Measurement and How We Define Success in the Algorithmic Age <i>Invited Panelist</i> IEEE Standards Association	2021
Privacy Preserving Recommendation on Twitter's Timeline Invited Panel Moderator	2020

ACM RecSys Conference

Public Scholarship on Technology Ethics

The Radical Al Podcast

Co-Host and Co-Founder 2020 - 2023 Al and tech ethics podcast centering marginalized and/or radical ideas and voices. Reached hundreds of thousands of downloads across 54 countries around the world.

SciFi in Real Life

Co-Host and Co-Founder 2019 - 2021 YouTube channel discussing modern ethical dilemmas in tech related to science fiction.

Medium Articles

Published Author 2018 - 2022 Articles on technology ethics. Published articles in Towards Data Science, The Startup, HackerNoon, and others.

Other Skills and Expertise

Research Expertise: qualitative methods, thematic analysis, iterative design, co-design, interviews, survey design, algorithmic auditing, participatory design workshops, focus groups, statistical inference, data science

Programming expertise: Python, GitHub, Java, JavaScript, C, R, HTML/CSS, React

Skills: Public speaking, podcasting, interviewing, software engineering, programming Al and machine learning models, writing, researching, public scholarship, teaching, managing teams and projects, research design

Languages: English (Fluent), Spanish (Working Proficiency)