Jessie J. Smith

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Education

University of Colorado Boulder

PhD Candidate, Information Science, 2019 - 2024

Researching under the supervision of Dr. Casey Fiesler and Dr. Robin Burke, with a focus on scoping, defining, measuring, and operationalizing fairness for machine learning systems. More recent work includes creating toolkits to help ML practitioners identify and mitigate harms for Generative AI and Recommender Systems.

California Polytechnic State University

Bachelor of Science, Software Engineering, December 2018

Research Experience

• **PhD Research Fellow**, Google	August 2022 - Present
• **Research Assistant on Fair Recommendations,** CU Boulder	Aug 2021 – Dec 2021
• **Research Assistant on Human-Centered Explainable AI**, CU Boulder	Jan 2021 – June 2021
• **Researcher,** The Internet Rules Lab, CU Boulder	Aug 2019 - Present
• **Researcher,** That Recommender Systems Lab, CU Boulder	Aug 2019 - Present
• **Machine Learning Ethics Researcher,** Cal Poly Data Science	Jan 2018 - Aug 2019
• **Research Assistant for the Ethics + Emerging Sciences Group**, Cal Poly Philosophy Department	Oct 2018 – Mar 2019

Industry and Professional Experience

• **AI Ethics & Society Research Consultant,** Allen AI Institute	2023 - Present
• **Algorithmic Impact & Harm Research Intern,** Spotify	Summer 2022
• **Machine Learning Robustness Analysis Intern**, Apple	Spring 2022
• **Fairness, Accountability, Transparency and Ethics in AI (FATE) Research Intern**, Microsoft Research (MSR)	Summer 2021
• **Podcaster and Researcher for AI Ethics,** IEEE Standards Association	2020 - 2022
• **AI Ethics Expert and Consultant,** Ethical Intelligence Co	2020 - Present
• **Co-Founder and Co-Host**, The Radical AI Podcast	2020 - Present
• **Data Science Intern**, Datapico Colombia	Summer 2019

- **Software Engineering Intern (backend)**, GoDaddy   Summer 2018
- **Software Engineering Intern (frontend)**, GoDaddy   Summer 2017

Honors and Awards

- **Computer Science PhD Fellowship**, Google   Aug 2022 – Dec 2024
- **Graduate School International Travel Grant**, CU Boulder   June 2024
- **CMCI Research Funds**, CU Boulder   Oct 2023
- **Graduate School Domestic Travel Grant,** CU Boulder   Jan 2022
- **Grad Student Outreach Award**, CU Boulder Information Science   May 2021
- **Finalist for Tech Ethics Competition**, Wolf Law School   Feb 2020
- **SIGAI Activities Fund Research Grant,** Awarded by ACM   Oct 2020

Peer-Reviewed Publications and Accepted Content

[Google Scholar Profile](#)

🏆 *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, 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.

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.*

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.*

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*.

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.*

Mansoury, M., Abdollahpouri H., **Smith J**., Dehpanah A., Pechenizkiy M., Mobasher, B. "Investigating Potential Factors Associated with Gender Discrimination in Collaborative Recommender Systems." *Proceedings of the Thirty-Third International Florida Artifical Intelligence Research Society Conference.*

Pinter, A. T., Paul, J. M., **Smith, J**., & Brubaker, J. R. (2020). P4KxSpotify: A Dataset of Pitchfork Music Reviews and Spotify Musical Features. *Proceedings of the International AAAI Conference on Web and Social Media, 14(1), 895-902.*

Vito Walter Anelli, Amra Delić, Gabriele Sottocornola, **Jessie 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.*

Luca Belli, Sofia Ira Ktena, Alykhan Tjani, Alexandre Lun-Yut-Fon, Frank Portman, Xiao Zhu, Yuanpu Xie, Akshay Gupta, Michael Bronstein, Amra Delic, Gabriele Scottocornola, Walter Anelli Nazareno Andrade, **Jessie Smith**, Wenzhe Shi "Privacy-Preserving Recommender Systems Challenge on Twitter's Home Timeline". arXiv:2004.13715 [Cs], April. 2020. arXiv.org.

Teaching Experience

- **(Guest Lecturer) NLP, LLM & Generative AI Ethics**: AHUM 1825: Interdisciplinary Data Science for All — Fall 2023
- **(Guest Lecturer) Fairness in Machine Learning and AI:** INFO 5601: Information Ethics and Policy — Fall 2023
- **(Guest Lecturer) Fairness in Recommender Systems:** INFO 5612: Recommender Systems — Fall 2023
- **(Adjunct Instructor)** INFO 1301: Statistics for Information Science — Fall 2023
- **(Guest Lecturer) Fairness in Machine Learning and AI:** INFO 5601: Information Ethics & Policy — Spring 2023
- **(Masterclass Instructor) Data Ethics:** Curriculum Development and Lecturer for The Data Lab, The University of Edinburgh — Spring 2023
- **(Guest Lecturer) Data Ethics:** INFO 5601: Information Ethics & Policy — Spring 2023
- **(Adjunct Instructor)** INFO 2001/4001: Information Science Portfolio and Professional Development — Spring 2023
- **(Guest Lecturer) Fairness in Machine Learning and AI:** INFO 4601: Information Ethics & Policy — Fall 2022
- **(Guest Lecturer & Grader) Fairness in Machine Learning and AI:** INFO 4601/5601: Information Ethics & Policy — Fall 2021
- **(TA)** INFO 1111: Introduction to Information Science: Understanding the World Through Data — Fall 2020
- **(Graduate Instructor)** INFO 1201: Computational Reasoning 1: Expression and Media Transformation — Summer 2020
- **(TA)** INFO 2201: Computational Reasoning 2: Representations of Data — Spring 2020
- **(TA)** INFO 1201: Computational Reasoning 1: Expression and Media Transformation — Fall 2019

Academic / Service Positions

- **Student Volunteer,** FAccT 2023 — June 2023
- **Graduate Student Association (GSA) Board Member,** Information Science Department at CU Boulder — Aug 2022 – Aug 2023
- **Graduate Student Association (GSA) President,** Information Science Department at CU Boulder — Aug 2020 – Aug 2021

- **Academic Chair**, RecSys 2020 Challenge   Sep 2019 – Sep 2020
- **Student Volunteer**, FAccT (FAT*) 2020   Jan 2020
- **Student Volunteer**, RecSys 2019   Sep 2019

Reviewing

- CHI, FAccT *(PC Member)*, JASIST   2024
- RecSys *(PC Member)*, JASIST, FAccT *(PC Member)*, CSCW, Journal for Responsible Computing   2023
- CSCW   2022
- Big Data and Society, CSCW, CHI, IDC, RecSys *(PC Member)*   2021
- CSCW   2020

Invited Talks / Panels

- **FAccT Conference:** Paper presentation on Recommend Me? Designing Fairness Metrics with Providers, accepted research paper   June 2024
- **The Gates Foundation:** The Generative AI Ethics Playbook   May 2024
- **Diversity, Explainability, Fairness in information retrieval, recommendation, and search systems (DEFirst Reading Group):** Fairness frameworks and logics in recommendation systems   March 2024
- **University of Minnesota:** Preparing for a career in AI and ML   October 2023
- **FAccT Conference:** Paper presentation on the Faces of Fairness accepted research paper   June 2023
- **World Wide Web (WWW) Conference:** Paper presentation on fairness metric scoping tool accepted research paper   April 2023
- **Recsys Conference:** FAccTRec Workshop presentation, Late Breaking Work Poster Presentation on Algorithmic Hate and Recommendation, Doctoral Symposium Presentation   September 2022
- **2nd Annual Community College Data Science Conference (Invited Panelist):** Artificial Intelligence: What Our Future Holds   May 2022
- **Data Science Team Companion Course:** Algorithmic Fairness 101   February 2022
- **FAccT Conference:** Paper presentation on REAL ML (machine learning limitations tool)   January 2022
- **Hathaway Brown High School for Women in STEM:** Computer Science Ethics as a Career   January 2022
- **NCWIT (Invited Webinar Speaker):** My Journey into CS Ethics and

Why this Field is so Important	July 2021

- **IEEE Standards Association (Invited Panelist):** Measurementality and How We Define Success in the Algorithmic Age — February 2021
- **RecSys 2021 Challenge (Invited Moderator):** Privacy Preserving Recommendation on Twitter's Timeline — November 2020

Public Scholarship on Technology Ethics

Jessie J. Smith and Dylan Doyle-Burke (April 2020 – 2023). "The Radical AI Podcast." radicalai.org, co-founders and co-hosts, *iTunes, Spotify, Google Play, iHeartRadio*.

Jessie J. Smith (September 2018 – 2022). Medium. https://medium.com/@jessiejsmith01. *Publications in Towards Data Science, The Startup, HackerNoon, and others.*

Jessie J. Smith and Shamika Goddard (December 2019 – December 2021). SciFi in Real Life. YouTube. https://www.youtube.com/channel/UCwKt0KzYmRV_sZDysJsOVKg.

Other

Research expertise: qualitative methods, thematic analysis, iterative design, co-design, community-based design, interviews, survey design, algorithmic auditing, participatory design workshops, quantitative methods, statistical inference, research ethics, machine learning algorithmic design, interpretivist research

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

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

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