# EMILY BLACK

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## **POSITIONS**

Assistant Professor, New York University

August 2024 - Present

Computer Science and Engineering Department and Center for Data Science (Joint)

Assistant Professor, Barnard College at Columbia University

July 2023 - July 2024

Computer Science Department

Postdoctoral Fellow, RegLab, Stanford Law School

August 2022 - July 2023

Advisor: Daniel Ho

Research Fellow, RegLab, Stanford Law School

June 2020 - August 2020

Advisor: Daniel Ho

Research Intern, Microsoft Research

June 2021 - August 2021

Advisor: Solon Barocas

# **EDUCATION**

Carnegie Mellon University

July 2018 - May 2022

PhD in Computer Science

Thesis: (Un)Fairness along the AI Pipeline: Problems and Solutions

Wesleyan University
B.A. Double Major: Math, Computer Science

September 2013 - May 2017

# SELECTED PUBLICATIONS

## Conference Papers

- 1. Qihan Wang, Shidong Pang, Tal Linzen, **Emily Black**. Multi-Lingual Prompting for Generation Diversity. EMNLP 2025.
- 2. Fan Wu, **Emily Black**\*, Varun Chandrasekaran\*. Generative Monoculture in Large Language Models. ICLR 2025.
- 3. Tom Zollo, Nikita Rajaneesh, Rich Zemel, Talia Gillis, **Emily Black**. Towards Effective Discrimination Testing for Generative AI . FAccT 2025.
- 4. Gordon Dai, Pavan Ravishankar, Rachel Yuan, Daniel B. Neill, **Emily Black**. Be Intentional About Fairness!: Fairness, Size, and Multiplicity in the Rashomon Set. EAAMO 2025.
- 5. **Emily Black**, Talia Gillis, Zara Hall. D-hacking. (2024 ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)), June 2024.
- 6. **Emily Black**, John Logan Koepke\*, Solon Barocas, Pauline Kim, Mingwei Hsu. The Legal Duty to Search for Less Discriminatory Algorithms. (2024 ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)), June 2024. (Non-archival).
- 7. Hadi Elzyan, **Emily Black**, Patrick Vossler, Nathaneal Jo, Jacob Goldin, Daniel Ho. Estimating and Implementing Conventional Fairness Metrics With Probabilistic Protected Features. IEEE SATML 2023.

- 8. Emily Black, Rakshit Naidu, Rayid Ghani, Kit Rodolfa, Daniel E. Ho, and Hoda Heidari. Toward Operationalizing Pipeline-aware ML Fairness: A Research Agenda for Developing Practical Guidelines and Tools. (In *Proceedings of the 2023 ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (ACM EAAMO))*, October 2023. (Selected for Oral Presentation)
- 9. Emily Black, Manish Raghavan, Solon Barocas. Model Multiplicity: Opportunities, Concerns, Solutions. In (2022 ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)), June 2022.
- 10. **Emily Black**\*, Hadi Elzayn\*, Alexandra Chouldechova, Jacob Goldin, Daniel Ho. Algorithmic Fairness and Vertical Equity: Income Fairness with IRS Tax Audit Models. In (2022 ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)), June 2022.
- 11. **Emily Black**, Klas Leino, Matt Fredrikson. Selective Ensembles for Consistent Predictions. (In 2022 International Conference on Learning Representations (ICLR)), April 2022.
- 12. **Emily Black**\*, Zifan Wang\*, Matt Fredrikson, Anupam Datta. Consistent Counterfactuals for Deep Models. (In 2022 International Conference on Learning Representations (ICLR)), April 2022.
- 13. Emily Black, Matt Fredrikson. Leave-One-Out Unfairness. In (2021 ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)), March 2021.
- 14. **Emily Black**, Samuel Yeom, Matt Fredrikson. FlipTest: Fairness Testing via Optimal Transport. (In 2020 ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)), January 2020.
- 15. Klas Leino, Emily Black, Matt Fredrikson, Shayak Sen, Anupam Datta. Feature-Wise Bias Amplification. (In 2019 International Conference on Learning Representations (ICLR)), May 2019.

# Law Reviews

- 16. Emily Black\*, John Logan Koepke\*, Solon Barocas, Pauline Kim, Mingwei Hsu. The Law of Less Discriminatory Algorithms. Forthcoming Georgetown Law Journal October 2024. (Winner of the Future of Privacy Forum's Privacy Papers for Policymakers Award 2023.)
- 17. Daniel E. Ho, **Emily Black**, Maneesh Agrawala, Li Fei-Fei. Evaluating Facial Recognition Technology: A Protocol for Performance Assessment in New Domains. (In *Denver Law Review, Vol. 98*, *Issue 4*), August 2021.

# Working Papers

- 18. Talia Gillis, Riley Stacy, Sam Brumer, Emily Black. Algorithmic UDAP. 2025.
- 19. **Emily Black**, Charlotte Burrows, Jenny Yang, Pauline Kim. The Debiasing Imperative: How Title VII of the Civil Rights Act of 1964 Supports Bias Mitigation in Artificial Intelligence Used in Employment. 2025.

#### SELECTED WORKSHOPS AND TUTORIALS

FAccT 2025: Understanding U.S. Anti-discrimination Requirements for Artificial Intelligence under the Trump Administration 2025

Co-organizer along with Charlotte Burrows, Jenny Yang, and Pauline Kim

· FAccT Tutorials Website

NeurIPS 2023: Governance & Accountability for ML: Existing Tools, Ongoing Efforts, & Future Directions (Tutorial)

#### · Tutorial Website

# FAccT 2023: Practices and limitations of participatory methods: views from computer science, political science and design (Tutorial)

Co-organizer along with Sofía Bosch Gómez and Luisa Godínez-Puig

· Presentation

# ICLR 2021: Responsible AI (Workshop)

2021

Co-organizer along with Ahmad Beirami, Krishna Gummadi, Hoda Heidari, Baharan Mirzasoleiman, Meisam Razaviyayn, and Joshua Williams

· Papers and presentations.

## **TEACHING**

# Accountable (Gen)AI: Harms, Law, and Practice

September - Present

New York University

# Responsible Data Science

January - May 2025

New York University

# Introduction to Computational Thinking and Data Science

January - May 2024

Barnard College at Columbia University

Technology and Society: The Good, the Bad, and the Other

September - December 2023

Barnard College at Columbia University

## SELECTED AWARDS

Privacy Papers for Policymakers 2023

Amazon Graduate Research Fellowship 2021

Honorable Mention for School of Carnegie Mellon School of Computer Science Distinguished Dissertation Award 2022