

ESHTA BHARDWAJ

[Email](#) · [LinkedIn](#) · [Personal Website](#) · [Google Scholar](#)

Researcher and [PhD Candidate](#) studying data practices in machine learning (ML) from a data curation lens. Research interests include examining concerns of fairness, accountability, and transparency in ML dataset development, developing methods to promote reflexivity in data work, and examining how information science (archival, librarian, and curatorial) approaches can be adopted within ML.

EDUCATION

PhD	University of Toronto, Information Supervisor: Christoph Becker	Sep 2022 – Present
MA	York University, Information Systems and Technology Thesis: “Data Analytics in Climate Change Studies” Supervisor: Peter Khaiteer	May 2022
BA	York University, Information Technology Specialized Honours	May 2020

HONORS AND AWARDS

Ontario Graduate Scholarship	2026 – 2027
<ul style="list-style-type: none">▪ Merit-based provincial award granted on the basis of academic experience and achievements as well as clarity and significance of submitted research proposal.▪ Amount awarded: \$15,000 CAD.	
Women in Machine Learning (WiML) Travel Award	2026
<ul style="list-style-type: none">▪ Competitive travel award to attend and present at the Women in Machine Learning workshop.▪ Amount awarded: \$625 USD.	
Ontario Graduate Scholarship	2025 – 2026
<ul style="list-style-type: none">▪ Amount awarded: \$15,000 CAD.	
Faculty of Information Excellence Award	2025 – 2026
<ul style="list-style-type: none">▪ Merit-based award granted in recognition of achieving an external, competitive award.▪ Amount awarded: \$5000 CAD.	
Women in Machine Learning (WiML) Travel Award	2024
<ul style="list-style-type: none">▪ Amount awarded: \$700 USD.	
NeurIPS 2024 Scholar Award	2024
<ul style="list-style-type: none">▪ Competitive travel award to attend and present at the conference on Advances in Neural Information Processing Systems, a leading global venue for AI/ML research.▪ Amount awarded: \$2400 USD.	
SGS PhD Research and Conference Travel Award	2024
<ul style="list-style-type: none">▪ Travel award to attend and present at Conference on Fairness, Accountability, and Transparency.▪ Amount awarded: \$3000 CAD.	
CapaCITY/É Summer Institute	2024
<ul style="list-style-type: none">▪ Competitive travel award to attend the CapaCITY/É project’s first training institute on implementation science for sustainability initiatives through interdisciplinary collaboration.▪ Amount awarded: \$900 CAD.	
WDS-ITO Student Travel Award for Research Data Alliance Plenary	2023
<ul style="list-style-type: none">▪ Competitive travel award granted to attend the Research Data Alliance 20th Plenary Meeting to learn research data management (RDM) practices and infrastructure, interoperability, and data stewardship and advance its usage within ML research.▪ Amount awarded: \$5000 CAD.	

- The [DCI Fellowship](#) offers students and researchers the ability to lead research at the intersection of sustainability, computing and technology, and curation activities. As part of the DCI, I have been part of establishing a baseline platform for data curation and modelling for [Curbcut Toronto](#).
- Amount awarded: \$5000 CAD.

PEER REVIEWED PUBLICATIONS

Conference Proceedings (full text peer reviewed)¹

1. **Bhardwaj, E.***, Zogheib, C.*, & Becker, C. Evaluating Structured Documentation as a Tool for Reflexivity in Dataset Development. (2026). In The 2026 ACM Conference on Fairness, Accountability, and Transparency (FAccT), 6903-6955. [DOI](#). (*equal contribution)
2. Qiao, H., Munson, R., Smith, N., **Bhardwaj, E.**, & Becker, C. Humour as Resistance: Visceralizing the Environmental and Social Impact of AI through Humour-based Creative Practices. (2026). In Proceedings of the 2026 Conference on Creativity and Cognition (C&C). [DOI](#).
3. Guliyeva, N., **Bhardwaj, E.**, & Becker, C. Exploring the Viability of the Updated World3 Model for Examining the Impact of Computing on Planetary Boundaries. (2025). In Proceedings of the 2025 Workshop on Computing within Limits (LIMITS). [URL](#).
4. **Bhardwaj, E.**, Gujral, H., Wu, S., Zogheib, C., Maharaj, T., & Becker, C. (2024). The State of Data Curation at NeurIPS: An Assessment of Dataset Development Practices in the Datasets and Benchmarks Track. In Advances in Neural Information Processing Systems Datasets and Benchmarks Track (Spotlight at NeurIPS). [DOI](#).
5. **Bhardwaj, E.**, Qiao, H., & Becker, C. (2024). Limits at a Distance: Design Directions to Address Psychological Distance in Policy Decisions Affecting Planetary Boundaries. In Proceedings of the 2024 Workshop on Computing within Limits (LIMITS). [DOI](#).
6. **Bhardwaj, E.**, Gujral, H., Wu, S., Zogheib, C., Maharaj, T., & Becker, C. (2024). Machine learning data practices through a data curation lens: An evaluation framework. In The 2024 ACM Conference on Fairness, Accountability, and Transparency (FAccT), 1055-1067. [DOI](#).
7. **Bhardwaj, E.***, Qiao, H.*, & Becker, C. (2023). Pathways to urban sustainability: Design perspectives on a data curation and visualization platform. In Proceedings of the 2023 Workshop on Computing within Limits (LIMITS). [DOI](#). (*equal contribution)

Journal Articles (full text peer reviewed)

1. **Bhardwaj, E.**, & Khaiteer, P. (2023). Is the climate getting WARMer? A framework and tool for climate data comparison. Environmental Modelling & Software, 171, Article 105879. [DOI](#).
2. **Bhardwaj, E.**, & Khaiteer, P. (2022). What data analytics can or cannot do for climate change studies: An inventory of interactive visual tools. Ecological Informatics, Article 101918. [DOI](#).

Short Papers in Conference Proceedings (full text peer reviewed)

1. **Bhardwaj, E.**, Qiao, H., Munson, R., & Becker, C. (2025). Humour as Resistance: Creative Approaches to Data Center Accountability. ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS) Workshop. [DOI](#).
2. Qiao, H., **Bhardwaj, E.**, Landau, V., Bonfils, N., Iqbal, M., Jaworsky, O., Munson, R., Rubisova, L., Smith, N., Thapa, A., & Becker, C. (2025). Are You Thirsty? So is Your AI. ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS) Arts & Demos. [DOI](#).

¹ Full text articles in peer reviewed conference proceedings are considered equivalent contributions to journal articles in Computer Science and computing-adjacent disciplines.

Papers and Demonstrations (abstract peer reviewed)

1. **Bhardwaj, E.** & Khaiter, P. (2022). Visualization tools for climate data analytics. In 2022 International Congress on Environmental Modelling and Software and Science Based Decision Making (**iEMSs**). [URL](#).
2. **Bhardwaj, E.** & Khaiter, P. (2021). Data Analytics Approach to Climate Change Studies. In 2021 International Congress on Modelling and Simulation (**MODSIM**). [URL](#).

PRESENTATIONS AND FACILITATIONS

Workshop Organizer

1. **Bhardwaj, E.** & Becker, C. (2025). Leveraging humour, satire, and art to engage with the environmental impacts of AI. ACM Conference on Fairness, Accountability, and Transparency (**FAccT**), CRAFT Workshop.
2. **Bhardwaj, E.**, Qiao, H., Munson, R., & Becker, C. (2025). Humour as Resistance: Creative Approaches to Data Center Accountability. ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (**COMPASS**) Workshop.
3. Qiao, H., **Bhardwaj, E.**, Landau, V., Bonfils, N., Iqbal, M., Jaworsky, O., Munson, R., Rubisova, L., Smith, N., Thapa, A., & Becker, C. (2025). Are You Thirsty? So is Your AI. ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (**COMPASS**) Arts & Demos.

Presentations that Accompany Publications in Conference Proceedings (full text peer reviewed)

1. **Bhardwaj, E.**, Zogheib, C., & Becker, C. (2026). Evaluating Structured Documentation as a Tool for Reflexivity in Dataset Development. In The 2026 ACM Conference on Fairness, Accountability, and Transparency (**FAccT**), 6903-6955. [Recorded talk](#)².
2. **Bhardwaj, E.**, Gujral, H., Wu, S., Zogheib, C., Maharaj, T., & Becker, C. (2024). The State of Data Curation at NeurIPS: An Assessment of Dataset Development Practices in the Datasets and Benchmarks Track. In Advances in Neural Information Processing Systems Datasets and Benchmarks Track (**Spotlight Poster - NeurIPS D&B**). [Recorded talk](#). [Poster](#).
3. **Bhardwaj, E.**, Qiao, H., & Becker, C. (2024). Limits at a Distance: Design Directions to Address Psychological Distance in Policy Decisions Affecting Planetary Boundaries. In Proceedings of the 2024 Workshop on Computing within Limits (**LIMITS**). [Recorded talk](#).
4. **Bhardwaj, E.**, Gujral, H., Wu, S., Zogheib, C., Maharaj, T., & Becker, C. (2024). Machine learning data practices through a data curation lens: An evaluation framework. In The 2024 ACM Conference on Fairness, Accountability, and Transparency (**FAccT**), 1055-1067. [Recorded talk](#).
5. **Bhardwaj, E.***, Qiao, H.*, & Becker, C. (2023). Pathways to urban sustainability: Design perspectives on a data curation and visualization platform. In Proceedings of the 2023 Workshop on Computing within Limits (**LIMITS**). (*equal contribution)

Presentations that Accompany Short Contributions (abstract peer reviewed)

1. **Bhardwaj, E.** & Becker, C. (2026). Auditing the Data Curation Practices of Power Systems Datasets. 21st Women in Machine Learning Workshop (**WiML**) at NeurIPS.
2. **Bhardwaj, E.** & Becker, C. (2024). Supporting Responsible Machine Learning by Improving Data Curation. 19th Women in Machine Learning Workshop (**WiML**) at **NeurIPS**. [Poster](#).
3. **Bhardwaj, E.** & Qiao, H. (2024). Pathways to urban sustainability: Design perspectives on a Toronto-based data curation and visualization platform. Ontario Climate Risk Workshop (**OCRW**) at the Beatrice and Arthur Minden Symposium on the Environment. [Poster](#).
4. **Bhardwaj, E.** & Khaiter, P. (2022). Visualization tools for climate data analytics. In 2022 International Congress on Environmental Modelling and Software and Science Based Decision Making (**iEMSs**).

² All recorded talks are made available online to accompany the synchronous oral talk performed at the event.

5. **Bhardwaj, E. & Khaiter, P. (2021).** Data Analytics Approach to Climate Change Studies. In 2021 International Congress on Modelling and Simulation (**MODSIM**).

RESEARCH EXPERIENCE

- Thesis**, York University 2022
- Successfully defended [master's thesis](#) on data analytics in climate change studies with a focus on developing a data analysis framework and visualization tool for climatic analysis on a regional scale to compare climate models with the corresponding observed values. Nominated for the annual Thesis Prize.

TEACHING EXPERIENCE

University of Toronto

Instructor, Faculty of Information

- INF1005/6: Caring for Datasets: Applying Information Lenses in the Age of AI 2026
- Designed and delivered a six-week workshop-style graduate course on developing skills and knowledge for approaching ML dataset development processes as craft work and through a critical, reflexive lens.

Instructor, Data Sciences Institute

- Data Visualization, Data Science Certificate 2025
- Five-class online module offered to doctoral students on theories, best practices, and technical skills for developing data visualizations using Python.

Teaching Assistant, Faculty of Information Jan 2023 – Present

- INF1003: Information Systems, Service and Design (graduate, 6 cohorts)
- INF1339: Introduction to Computational Thinking (graduate, 1 cohort)
- INF1342: System Requirements and Architectural Design (graduate, 5 cohorts)
- INF2040: Project Management (graduate, 1 cohort)
- INF2169: User-Centered Information Systems Development (graduate, 2 cohorts)
- INF2210: Human Values in Data Science (graduate, 1 cohort)

York University

- Teaching Assistant**, Information Technology Sep 2020 – Apr 2022
- ITEC 1000: Introduction to Information Technologies (undergraduate, 1 cohort)
 - ITEC 1010: Information and Organizations (undergraduate, 3 cohorts)

OTHER SERVICE & MISC.

- Affiliate, Toronto Climate Observatory 2023 – Present
- Member, FAIR for Machine Learning (FAIR4ML) IG 2023 – Present
- Member, Just Sustainability Design Lab 2022 – Present
- Student Volunteer, Conference on Fairness, Accountability, and Transparency (FAccT) 2024, 2026
- Reviewer, Advances in Neural Information Processing Systems (NeurIPS) 2026
- Reviewer, ACM Conference on Fairness, Accountability, and Transparency (FAccT) 2026 – 2027
- Volunteer Mentor, PhD Peer Mentorship Program at UofT FOI 2025
- Reviewer, ACM Conference on Human Factors in Computing Systems (CHI) 2025
- Reviewer, Women in Machine Learning Workshop (WiML) at NeurIPS 2024 – 2026
- Reviewer, Journal of Environmental Modelling & Software 2024
- Reviewer, International Conference on ICT for Sustainability 2023