

Clara Belitz

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Education

University of Illinois Urbana–Champaign, PhD in Information Sciences Expected Spring 2026

Dissertation: Fair for Whom? Investigating School Identity, Algorithmic Fairness, and Educational Technologies
Committee: Nigel Bosch, Jana Diesner, Toby Beauchamp, Jessie Chin

Bowdoin College, BA in Computer Science, Mathematics 2017

Publications

Peer-reviewed Journal Publications

Belitz, C., Ocumpaugh, J., Ritter, S., Baker, R. S., Fancsali, S. E., & Bosch, N. (2023). Constructing categories: Moving beyond protected classes in algorithmic fairness. *Journal of the Association for Information Science and Technology*, 74(6), 663-668. DOI: 10.1002/asi.24643

Peer-reviewed Published Conference Proceedings

Belitz, C., Lee, H., Nasiar, N., Fancsali, S.E., Stinar, F., Almoubayyed, H., Ritter, S., Baker, R., Ocumpaugh, J., & Bosch, N. (2025). Exploring student identity in adaptive learning systems through qualitative data. *Proceedings of the 26th International Conference on Artificial Intelligence in Education (AIED 2025)*, pp. 356-363. DOI: 10.1007/9783031984624_45

Stinar, F., Lee, H., **Belitz, C.**, Nasiar, N., Fancsali, S. E., Ritter, S., Almoubayyed, H., Baker, R. S., Ocumpaugh, J., & Bosch, N. (2025). Fairness of Bayesian knowledge tracing for math learners of different reading ability. *Proceedings of the 18th International Conference on Educational Data Mining (EDM 2025)*, pp. 170-181. DOI: 10.5281/zenodo.15870165

Lee, H., **Belitz, C.**, Nasiar, N., & Bosch, N. (2025). XAI reveals the causes of attention deficit hyperactivity disorder (ADHD) bias in student performance prediction. *Proceedings of the 15th Learning Analytics and Knowledge Conference (LAK '25)*, pp. 418-428. DOI: 10.1145/3706468.3706521

Balasubramaniam, G.S*, **Belitz, C.***, & Chan, A.S. (*indicates equal contributions). (2024). Bridging informational divides: A community-centered analysis of “public safety” surveillance technology. *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, (alt.CHI '24)*, p.1-13. DOI: 10.1145/3613905.3644046

Belitz, C., Lee, H., Nasiar, N., Fancsali, S. E., Ritter, S., Almoubayyed, H., Baker, R. S., Ocumpaugh, J., & Bosch, N. (2024). Hierarchical dependencies in classroom settings influence algorithmic bias metrics. *Proceedings of the 14th International Conference on Learning Analytics and Knowledge (LAK '24)*, pp. 210-218. DOI: 10.1145/3636555.3636869

Jiang, L., **Belitz, C.**, & Bosch, N. (2024). Synthetic dataset generation for fairer unfairness research. *Proceedings of the 14th International Conference on Learning Analytics and Knowledge (LAK'24)*, pp. 200-209. DOI: 10.1145/3636555.3636868

Belitz, C., Jiang, L., & Bosch, N. (2021). Automating procedurally fair feature selection in machine learning. *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society (AI/ES '21)*, pp. 379-389. DOI: 10.1145/3461702.3462585

Peer-reviewed Workshop Papers

Belitz, C. (2025). Fair for whom? Investigating school identity, algorithmic fairness, and educational technologies. *Posters and Late Breaking Results, Workshops and Tutorials, Industry and Innovation Tracks, Practitioners, Doctoral Consortium, Blue Sky, and WideAIED (AIED 2025)*, pp 291–296. DOI:10.1007/9783031992612_26

Belitz, C., Bosch, N., Jiang, L., Jivet, I., Kirouchenassamy, B., Lee, H., Leporini, B., Mallocci, F. M., Marras, M., Rotelli, D., & Stinar, F. (2025). Fair4AIED 2025: First international workshop on fairness in algorithmic decision-making for education. *Posters and Late Breaking Results, Workshops and Tutorials, Industry and Innovation Tracks, Practitioners, Doctoral Consortium, Blue Sky, and WideAIED (AIED 2025)*, pp. 308-314. DOI:10.1007/9783031992674_40

Book Chapters

Yang, C., Balasubramaniam, G., **Belitz, C.**, & Chan, A.S. (2023). Resisting data colonialism and digital surveillance in a midwestern classroom: Exploring community-driven alternatives to Automated License Plate Readers. *Resisting Data Colonialism: A Practical Intervention*. Institute of Network Cultures, Amsterdam, 81–86. ISBN: 9789083328263

Community Engaged Reports

Pruss, D., Pullen-Blasnik, H., Stevens, N., Rahman, S. **Belitz, C.**, Stapleton, L., Dharmaraj, M.G., Aizeki, M., Molnar, P., Pinch, A., Ryan, N., Lima, T. and Widder, D.G., Tiwari, A., Zhāngsūn Brown, L.X. Sexton, J.S. & Nunes, P. (2024). Prediction and Punishment: Critical Report on Carceral AI. DOI: 10.2139/ssrn.5017321

Balasubramaniam, G.S*, **Belitz, C.***, & Chan, A.S. (*indicates equal contributions) (2023). Automated License Plate Readers (ALPRs): Surveillance & Policing. Available online.

Invited Talks, Panels, and Public Scholarship

Fighting for Algorithmic Justice in an Age of AI-Driven Surveillance (upcoming, Nov 2025). Presentation at *Friday Forum + Conversation Café*. The University YMCA. University of Illinois Urbana–Champaign.

Strengthening our Resolve: AI Ethical Standards and Resolving to Make Ethical AI Decisions (Oct 2025). Panel at *Association for Library and Information Science Education (ALISE) 2025*. Kansas City, MO.

The Graduate Employees' Organization at University of Illinois Urbana–Champaign: Lessons in Higher Education Organizing in a Post-Janus Landscape (June 2025). Panel at *Labor and Working-Class History Association Conference*. University of Chicago.

Computational Gender Flailing: How Queer Identities Glitch Algorithmic Classifications (Nov 2024). Presentation at *Conference of the Association for Computers and the Humanities (ACH)*. Virtual.

Lafond, B. (March 2024). AI @ Illinois: Making AI Legible with **Clara Belitz** and Ali Zaidi. *University of Illinois GradLIFE Podcast*. <https://blogs.illinois.edu/view/6397/1198273108>. University of Illinois Urbana–Champaign.

Bridging Informational Divides: A Community-Centered Analysis of 'Public Safety' Surveillance Technology (Feb 2024). Presentation at *Prediction and Punishment: Cross-Disciplinary Workshop on Carceral AI*. University of Pittsburgh.

Ethical use of AI and big data (August 2023). Invited lecture and discussion at *Bioethics-at-Broad*. Broad Institute of Harvard and MIT.

Meaning-full Technology: A Discussion with Eric Chown (December 2021). Moderated Q&A with Dr. Eric Chown. <https://www.youtube.com/watch?v=wHXbA8xVA4A>. Bowdoin College.

Automating procedurally fair feature selection in machine learning (Aug 2021). Presentation at *Fairness and Bias in Machine Learning & Optimization*, 21st Annual Modeling and Optimization: Theory and Applications (MOPTA). Virtual.

Teaching and Mentorship

Teaching Activities

- Instructor, Concepts of Machine Learning (IS 327) – Fall 2025
- Teaching Assistant, Concepts of Machine Learning (IS 327) – Fall 2024

Undergraduate Students Mentored

- Zoe Hanson (2025)
- Autumn Rosedale (2025)

Professional and Community Activities

Journal Reviews

- British Journal of Educational Technology
- Journal of Learning Analytics

Conference Reviews

- ACM CHI Conference on Human Factors in Computing Systems
- ACM Conference on Fairness, Accountability, and Transparency (FAccT)
- Conference on Neural Information Processing Systems (NeurIPS) – Ethics Reviewer
- International Conference on Artificial Intelligence in Education (AIED)
- International Conference on Educational Data Mining (EDM)
- International Conference on Learning Analytics & Knowledge (LAK)

Workshop Organization

- Co-chair/organizer, *Fair4AIED 2025: First International Workshop on Fairness in Algorithmic Decision-Making for Education* held at the Artificial Intelligence in Education (AIED) 2025 conference
<https://fair4aied.github.io/2025/>
- Co-organizer, *We're All We Have: Movement Building & Direct Action in Times of Crisis* held at the Urbana–Champaign Independent Media Center, Feb 2025.

Professional Memberships

- Association for Computing Machinery (ACM)

Campus Committees

Doctoral Student Representative, University of Illinois Urbana–Champaign School of Information Sciences Diversity Committee	2024-2025
Board Member, Doctoral Student Association, University of Illinois Urbana–Champaign Information Sciences	2022-2024
Chair, University of Illinois Urbana–Champaign Association for Computing Machinery–Women	2021-2022
Activites Chair, University of Illinois Urbana–Champaign Association for Computing Machinery–Women	2021

Additional Service

Information Sciences Steward, University of Illinois Graduate Employees Organization	2021-2025
Teen Lounge Volunteer, Champaign Public Library	2024-2025
Co-President, University of Illinois Graduate Employees Organization	2024
Co-Chair, Steward's Council, University of Illinois Graduate Employees Organization	2022-2023

Fellowships and Awards

EDM 2025 Finalist for Best Paper Award (International Conference on Educational Data Mining)	2025
Dissertation Completion Fellowship, University of Illinois Urbana–Champaign, School of Information Sciences	2025
Illinois Distinguished Fellowship, University of Illinois Urbana–Champaign	2021-2024
Illinois Federation of Teachers Fellow, University of Illinois Graduate Employees Organization	2021-2022
Katherine L. Sharp Fellowship, University of Illinois Urbana–Champaign, School of Information Sciences	2020

Industry Experience

DevOps Consultant	2020
DevOps Engineer, <i>Tamr, Inc.</i>	2018-2020
Documentation Lead, <i>Tamr, Inc.</i>	2017-2018