

# CLARA BELITZ

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School of Information Sciences  
University of Illinois Urbana-Champaign

## EDUCATION

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**Ph.D, *in progress*, in Information Sciences** **expected 2026**  
University of Illinois Urbana-Champaign, Urbana-Champaign, IL

**B.A. in Computer Science and Mathematics, *cum laude*** **2017**  
Bowdoin College, Brunswick, ME

## PUBLICATIONS

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### *Peer Reviewed Publications*

**Belitz, C.**, Lee, H., Nasiar, N., Fancsali, S.E., Ritter, S., Baker, R.S., Ocumpaugh, J., and Bosch, N. *Beyond Binary: Advancing Algorithmic Fairness through Intersectional Identity Data Collection in Educational Technologies*. (under review).

Lee, H., **Belitz, C.**, Nasiar, N., and Bosch, N. *XAI Reveals the Causes of Attention Deficit Hyperactivity Disorder (ADHD) Bias in Student Performance Prediction*. In Proceedings of the 15th Learning Analytics and Knowledge Conference (LAK '25), pp. 418-428 [\[DOI\]](#)

Balasubramaniam, G.\*, **Belitz, C.\***, Chan A.S. (\*indicates equal contributions). *Bridging Informational Divides: A Community-Centered Analysis of "Public Safety" Surveillance Technology*. In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '24), May 1116, 2024, Honolulu, HI, USA. ACM, New York, NY, USA, 13 pages. <http://doi.org/10.1145/3613905.3644046>

**Belitz, C.**, Lee, H., Nasiar, N., Fancsali, S.E., Ritter, S., Almoubayyed, H., Baker, R.S., Ocumpaugh, J., and Bosch, N. 2024. *Hierarchical Dependencies in Classroom Settings Influence Algorithmic Bias Metrics*. In Proceedings of the 14th Learning Analytics and Knowledge Conference, March 18, 2024. ACM, Kyoto Japan, 210–218. <https://doi.org/10.1145/3636555.3636869>

Jiang, L., **Belitz, C.**, and Bosch, N. 2024. *Synthetic Dataset Generation for Fairer Unfairness Research*. In Proceedings of the 14th Learning Analytics and Knowledge

Conference, March 18, 2024. ACM, Kyoto Japan, 200–209.

<https://doi.org/10.1145/3636555.3636868>

**Belitz, C.**, Ocumpaugh, J., Ritter, S., Baker, R.S., Fancsali, S.E., Bosch, N. (2022). *Constructing Categories: Moving Beyond Protected Classes in Algorithmic Fairness*. In Journal of the Association for Information Science and Technology. doi: [10.1002/asi.24643](https://doi.org/10.1002/asi.24643).

**Belitz, C.**, Jiang, L., & Bosch, N. (2021). *Automating Procedurally Fair Feature Selection in Machine Learning*. In Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society (AIES '21). New York, NY: Association for Computing Machinery. <https://doi.org/10.1145/3461702.346258>

### **Chapters in Edited Volumes**

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 Licence Plate Readers*. In Resisting Data Colonialism: A Practical Intervention. Institute of Network Cultures, Amsterdam. [9789083328263](https://doi.org/10.1017/9789083328263).

### **Posters**

**Belitz, C.**, Jiang, L., & Bosch, N. *Automating procedurally fair feature selection in machine learning*. University of Illinois iSchool Research Showcase (2021).

**Belitz, C.** *Robust Model Checking for Urban Traffic Simulations*. Carnegie Mellon Robotics Institute Summer Scholars Project Poster Session (2015).

### **Community-Engaged Work and 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., Widder, D. G., Tiwari, A., Zhāngsūn Brown, L. X., Sexton, J. S., and Nunes, P., *Prediction and Punishment: Critical Report on Carceral AI* (November 01, 2024). Available at SSRN: [https://ssrn.com/abstract\\_id=5017321](https://ssrn.com/abstract_id=5017321)

Lafond, B. (2024). AI @ Illinois: Making AI Legible with **Clara Belitz** and Ali Zaidi [Broadcast]. Retrieved January 3, 2025, from <https://blogs.illinois.edu/view/6397/1198273108>

Oreskes, N. & **Belitz, C.** *Universities must end financial ties to climate denying fossil-fuel giants – now*. The Guardian. 2014, Apr 17.

<https://www.theguardian.com/commentisfree/2014/apr/17/universities-end-financial-ties-fossil-fuel-industry-now>

## **INVITED TALKS and WORKSHOPS**

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*Computational Gender Flailing: How Queer Identities Glitch Algorithmic Classifications.* Conference of the Association for Computers and the Humanities. Nov 2024.

*Prediction and Punishment: Cross-Disciplinary Workshop on Carceral AI.* Invited workshop participant and speaker. University of Pittsburgh. Feb 2024.

*“Health, Equity, and Freedom.”* Invited panelist for the Woman@Broad Annual Symposium. Aug 2023.

*Automating procedurally fair feature selection in machine learning.* Fairness and Bias in Machine Learning/Optimization, 21st annual Modeling and Optimization: Theory and Applications. August 4, 2021.

## **PROFESSIONAL ACTIVITIES**

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### **Professional Memberships**

- Association for Computing Machinery (ACM)

### **Conference Reviews (Program Committee)**

- International Conference on Artificial Intelligence in Education
- British Journal of Educational Technology
- ACM CHI conference on Human Factors in Computing Systems – main track and Alt.Chi track
- Conference on Neural Information Processing Systems – Ethics Reviewer
- Educational Data Mining (EDM) Conference
- ACM Conference on Fairness, Accountability, and Transparency (FAccT) – subreviewer

## **RESEARCH EXPERIENCE**

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### **Graduate Research Assistant**

**2021–2025**

*Human + Machine Learning Lab, University of Illinois Urbana-Champaign*

- Research assistant for Dr. Nigel Bosch
- Funded through NSF Grant for project titled Collaborative Research: Exploring Algorithmic Fairness and Potential Bias in K-12 Mathematics Adaptive Learning
- Lead in developing updated coding scheme for Twenty Statements Test

- Performed interviews of students and teachers and data analysis of survey responses
- Participated in work including running experiments, writing up results, supporting IRB applications

**Affiliated Researcher** **2023–2024**

*Community Data Clinic, University of Illinois Urbana-Champaign*

- Co-Lead on project examining public safety technologies in Urbana-Champaign
- Co-mentored 2 undergraduate and 1 masters research assistants in Spring 2024
- Produced both academic and community-facing scholarship

**Summer Scholar** **2015**

*Robotics Institute, Carnegie Mellon University*

- Worked in Prof. Steve Smith’s Intelligent Coordination and Laboratory building model checking software in Python

**Research Assistant** **2014**

*Digital and Computational Studies Initiative, Bowdoin College*

- Worked with Prof. Jack Giesecking, New Media and Data Visualization Specialist, using Python to scrape data from Tumblr in close to real time to study cultures and identities of transgender men in online spaces

**TEACHING EXPERIENCE**

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**Graduate Teaching Assistant** **Fall 2024**

*Concepts of Machine Learning, University of Illinois Urbana-Champaign*

**Teaching Assistant** **2014–2016**

*Center for Learning and Teaching, Bowdoin College*

**HONORS AND AWARDS**

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- Founders Award, Tamr **2018**
  - NCAA Final Four All-Tournament Team **2016**
  - NESCAC All-Academic Team **2014–2016**
  - NFHCA Academic Squad **2013–2016**
  - Sarah and James Bowdoin Scholar **2014**

**GRANTS AND FELLOWSHIPS**

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- Illinois Distinguished Fellowship, UIUC **2021–2024**
  - Illinois Federation of Teachers Fellow **2021–2022**
  - Katherine L Sharp Fellowship, UIUC School of Information Sciences **2020**
  - Carnegie Mellon Robotics Institute Summer Scholar **2015**

- Gibbons Fellow, Bowdoin College **2014**

## **UNIVERSITY, PROFESSIONAL, AND COMMUNITY SERVICE**

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- Doctoral Representative, UIUC iSchool Diversity Committee **2024–2025**
- Co-President, UIUC GEO **Spring 2024**
- Board Member, Doctoral Student Association, UIUC IS **2022–2024**
- Co-Chair, Steward’s Council, UIUC GEO  
**2022–2023**
- Chair, UIUC ACM-W **2021–2022**
- Activities Chair (Tech Tutorials), UIUC ACM-W **Spring 2021**
- Organizer & Leader, IfNotNow **2017–2020**
- Founding Member, Tamr Diversity and Inclusion Committee **2018–2020**

## **INDUSTRY EXPERIENCE**

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- **DevOps Consultant** **2020**
- **DevOps Engineer, Tamr, Inc.** **2018–2019**
- **Documentation Lead, Tamr, Inc.** **2017–2018**