Alex DiChristofano

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EDUCATION

Washington University in St. Louis, St. Louis, MO   2020 – Present
Ph.D. in Computational & Data Sciences; Social Work and Public Health Track
   Dissertation: ***Engaging Communities with Data Science: Designs for Marginalized Populations***
   Advisors: Patrick Fowler (Public Health, Social Work) and Chien-Ju Ho (Computer Science & Engineering)

Washington University in St. Louis, St. Louis, MO   2016 – 2020
B.A. in Mathematics, Second Major in Computer Science
- GPA: 3.91/4.00, Graduated with Honors

HIGHLIGHTED RESEARCH EXPERIENCE

Leveraging Municipal Records to Predict Eviction Filings and Plan Housing Outreach
Collaboration with the St. Louis Regional Response Team and Tolemi (a civic technology company)

Goal: Develop a property-level model of imminent eviction filing risk in St. Louis
- Worked with St. Louis' civic tech partner to uncover data issues and improve administrative data linking processes
- Cleaned data and created a representation of each property that included historical filing patterns from court records, property and owner attributes from tax records, neighborhood attributes from the Census/ACS, and satellite imagery
- Trained machine-learning models to predict whether properties had tenants likely to be filed against within three months

Goal: Evaluate the effects of segregation and eviction inequality on efficiency and equity in door-to-door housing outreach
- Modeled door-to-door housing outreach as a vehicle routing problem and developed a group-level definition of equity
- Designed a set of outreach problems by simulating housing segregation and filing disparities between racial groups
- Tested and compared two targeting methods, an optimization-based solver approximating a solution to the vehicle routing problem as well as a neighborhood-based heuristic modeled on current outreach methods
- *(In-Progress)* Applying this analysis to real filing data across the U.S., utilizing real between-property transit times

Measuring the Effects of Stakeholder Engagement in AI Decision Support Tool Development
Collaboration with the Genesee County Land Bank Authority

Goal: Understand how stakeholder involvement in the fine-tuning of AI decision support tools affects trust and reliance
- Created a web scraper to retrieve images and inspection data of vacant land bank-owned properties in Flint, Michigan
- Developed a web-based experiment emulating the process of community involvement used by the Genesee County Land Bank Authority in prioritizing vacant properties for demolition
- *(In-Progress)* Conducting the experiment with online participants recruited from Prolific, and measuring the effects of participation in AI fine-tuning on decision-making behavior and trust in the tool

PROFESSIONAL EXPERIENCE

Department of Supervision and Regulation, Federal Reserve Bank of Chicago   Summer 2023
Business Analytics Intern

- Worked on products visible to bank-wide leadership in partnership with data and automation and quality assurance teams
- Developed dashboards and automated workflows in Tableau and PowerBI, adapting solutions to the tools already in use
- Increased reliability and dramatically reduced the need for manual oversight and intervention over former processes
- Led deployment, documentation, and staff training on automated solutions to ensure long-term adoption

TECHNICAL SKILLS

Tools: Python, R, MATLAB, SQL/NoSQL, JS, HTML/CSS, Bash Scripting, Git, Docker, ArcGIS, Tableau, Power BI

Analytical Expertise: Machine Learning, Optimization, Causal Inference, Program Evaluation, GIS, Algorithmic Fairness and Bias Evaluation, Experimental Design, Data Wrangling & Feature Engineering, Data Visualization

PREPRINTS

DiChristofano, A., Das, S., Fowler, P. J. 2026. Navigating Divides: The Effects of Segregation and Inequality on Door-to-Door Housing Outreach. *Under Review.*

Thibodeau, H., **DiChristofano, A.**, Howerton, I., Das, S., Luke, D. A., Fowler, P. J. 2025. Eviction Markets: Owner-Attorney Networks Underlying Tenant Displacement. *Under Review.*

DiChristofano, A., Hamilton, M. L., Hao, Q., Linardi, S. 2025. Platform Design with Prosocial Participants: Lessons from 412Connect. *Under Review.* [link]

DiChristofano, A., Shuster, H., Chandra S., Patwari, N. 2023. Performance Disparities Between Accents in Automatic Speech Recognition. *arXiv.* [link]

CONFERENCE & JOURNAL PUBLICATIONS

Sarkar, A., **DiChristofano, A.**, Das, S., Fowler, P. J., Jacobs, N., Vorobeychik, Y. 2025. Active Geospatial Search for Efficient Tenant Outreach. *AAAI-AISI '25: AAAI Conference on Artificial Intelligence, Special Track on AI for Social Impact.* [link]

Farrell, D. C., Fowler, P. J., Parulkar, A., **DiChristofano, A.**, Goodrich, T., Mott, S., Silverman, R., Manglik, S. 2025. Addressing Risks and Reducing Homelessness of Vulnerable Parenting Youths: An Implementation and Impact Evaluation of HELP USA's New Beginnings Program. *The International Journal on Homelessness.* [link]

Mashiat, T., **DiChristofano, A.**, Fowler, P. J., Das, S. 2024. Beyond Eviction Prevention: Leveraging Local Spatiotemporal Public Records to Inform Action. *FAccT '24: ACM Conference on Fairness, Accountability, and Transparency.* [link]

Sarkar, A.*, **DiChristofano, A.***, Das, S., Fowler, P. J., Jacobs, N., Vorobeychik, Y. 2024. Geospatial Active Search for Preventing Evictions (Extended Abstract). *AAMAS '24: International Conference on Autonomous Agents and Multiagent Systems.* [link]

DiChristofano, A., Shuster, H., Chandra S., Patwari, N. 2023. Performance Disparities Between Accents in Automatic Speech Recognition (Student Abstract). *AAAI '23: AAAI Conference on Artificial Intelligence.* [link, arXiv]
- Student Abstract Finalist, Selected for Presentation

DiChristofano, A., Hamilton, M. L., Linardi, S., McCloud, M. F. 2021. Project 412Connect: Bridging Students and Communities. *EAAMO '21: ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization.* [link]
- 28% Acceptance Rate, **New Horizons Award for Bridging Research and Practice**

Chung, M. K., Lee, H., **DiChristofano, A.**, Ombao, H., Solo, V. 2019. Exact Topological Inference of the Resting-State Brain Networks in Twins. *Network Neuroscience.* [link]

* denotes equal contribution

CONFERENCE PRESENTATIONS & INVITED TALKS

Performance Disparities Between Accents in Automatic Speech Recognition
- *AAAI-23 Student Abstract and Poster Program.* (2023)

Project 412Connect: Bridging Students and Communities
- *2023 INFORMS Annual Meeting.* (Invited Talk, 2023)
- *2022 INFORMS Annual Meeting.* (Invited Talk, 2022)
- *Year of Data and Society, University of Pittsburgh.* (Invited Talk, 2021) *
- *EAAMO' 21: ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization.* (2021)

Grief to Action: Collaborative Efforts Between Researchers and Communities
- *Global Perspectives on Inequality Working Group, EAAMO Bridges (Formerly MD4SG).* (Invited Talk, 2022) *

Confronting Homelessness Through Critical Time Interventions
- *Conference, National Association of Social Workers - New York City Chapter.* (Invited Talk, 2021) *
- *Rising Stars Workshop, Harvard Center for Research on Computation and Society.* (Invited Talk, 2020)
- *12th Annual Institute for Public Health Conference, Washington University in St. Louis.* (2019)

GRANTS AND FELLOWSHIPS

Seed Grant, *Transdisciplinary Institute in Applied Data Sciences*, *Washington University in St. Louis*	2024
Small Grant, *Center for the Study of Race, Ethnicity, & Equity*, *Washington University in St. Louis*	2023
Engaged Scholarship Summer Design Fellow, *University of Pittsburgh*	2021
Dean's Select Doctoral Fellowship, *Washington University in St. Louis*	2020 – 2021
Summer Research Opportunities Program, *University of Wisconsin-Madison*	2018

AWARDS

Honorable Mention, *NSF Graduate Research Fellowship Program (GRFP)*	2022
New Horizons Award for Bridging Research and Practice, *EAAMO '21*	2021
Dean's List, *Washington University in St. Louis*	2016 – 2018

TEACHING

Assistant to the Instructor
Department of Computer Science and Engineering, Washington University in St. Louis, St. Louis, MO

- Introduction to Graduate Research in Computational and Data Sciences (DCDS 499)	Spring 2023
o Created and led final project and gave lectures	
- Signals, Data, and Equity (CSE 359A / ESE 359)	Fall 2021
o Assisted in course development and gave lectures	
- Multi-Agent Systems (CSE 516A)	Fall 2019
- Computational Geometry (CSE 546T)	Fall 2019
- Data Structures and Algorithms (CSE 247)	Spring 2019

PROFESSIONAL SERVICE AND ACTIVITIES

Equity and Access in Algorithms, Mechanisms, and Optimization ([EAAMO](#)) Leadership

- Nonprofit Incorporation and Fiscal Sponsorship Team	2024
- Social Media Team	2021 – 2023

Working Group Member

- Urban Data Science, *EAAMO Bridges*	2024 – 2025
- Global Perspectives on Inequality*, EAAMO Bridges*	2021 – 2025

Social Media Co-Chair

- *EAAMO '23: ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization*	2023
- *EAAMO '22: ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization*	2022
- *EAAMO '21: ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization*	2021

Program Committee | Reviewer

- AAAI '26: *AAAI Conference on Artificial Intelligence*	2025
- AISI '26: *AAAI Special Track on AI for Social Impact*	2025
- EAAMO '25: *ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization*	2025
- FAccT '25: *ACM Conference on Fairness, Accountability, and Transparency*	2025
- EAAMO '24: *ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization*	2024
- AASG '24: *International Workshop on Autonomous Agents for Social Good*	2024

Conference Volunteer

- FAccT '22: *ACM Conference on Fairness, Accountability, and Transparency*	2022