Wonyoung So

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Education

2025   **Ph.D. in Urban and Regional Planning,** *Massachusetts Institute of Technology (MIT)*
Department of Urban Studies and Planning (DUSP)
Dissertation: Reparative Urban Science: Challenging the Myth of Neutrality and Crafting Data-Driven Narratives
Committee: Catherine D'Ignazio (Chair), Justin Steil, Anette "Peko" Hosoi (MIT IDSS), Erin McElroy (University of Washington)

2020   **Master in City Planning,** *Massachusetts Institute of Technology (MIT)*

2015   **Bachelor of Fine Arts in Visual Communication Design,** *Kookmin University*

Research Interests

AI Ethics, Critical Data Studies, Spatial Analysis, Segregation, Racism, Data Visualization

Academic Appointments

Aug 2025 —   **Assistant Professor of Urban Technology,** *Taubman College of Architecture and Urban Planning, University of Michigan – Ann Arbor.*

Jun 2025 —   **Postdoctoral Researcher,** Data + Feminism Lab, *Massachusetts Institute of Technology (MIT)*

Peer-Reviewed Publications

2025   **So, W.,** Gade, A., & Hangen, F. **Choice denied: impact of income and credit-based tenant screening on the Housing Choice Voucher program.** *Housing Studies*, 1–26.

2024   **So, W. Race, Profit, and Algorithms: Neighborhood-level Analysis of iBuyers' Profit Margin.** *Journal of Urban Affairs.* 1-21.

2024   **So, W. Reparative Urban Science: Challenging the Myth of Neutrality and Crafting Data-driven Narratives.** *Planning Theory & Practice, 25*(3), 389–406.

2024   Liu, E., **So, W.,** Hosoi, A.E., & D'Ignazio, C. **Racial Steering by Large Language Models: A Prospective Audit of GPT-4 on Housing Recommendations.** *2024 ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO '24).*

2023   **So, W.** & D'Ignazio, C. **Race-Neutral vs Race-Conscious: Using Algorithmic Methods to Evaluate the Reparative Potential of Housing Programs.** *Big Data & Society.* 10(2), 1-16.

2023   **So, W. Which Information Matters? Measuring Landlord Assessment of Tenant Screening Reports.** *Housing Policy Debate*, 33(6), 1484-1510.

2022   **So, W.,** Lohia, P., Pimplikar, R., Hosoi, A. E., & D'Ignazio, C. **Beyond Fairness: Reparative Algorithms to Address Historical Injustices of Housing Discrimination in the US.** *2022 ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)*, 988–1004. [Video]

2022   Suresh, H., Movva, R., Dogan, A. L., Bhargava, R., Cruxen, I., Cuba, A. M., Taurino, G., **So, W.,** & D'Ignazio, C. **Towards Intersectional Feminist and Participatory ML: A Case Study in Supporting Feminicide Counterdata Collection.** *2022 ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)*, 667–678. **Best student paper award.**

2022   D'Ignazio, C., Cruxen, I., Suárez Val, H., Cuba, A. M., Garcia-Montes, M., Fumega, S., Suresh, H., & **So, W. Feminicide and Counterdata Production: Activist Efforts to Monitor and Challenge Gen-**

der-Related Violence. *Patterns*, 3(7), 1-13.

2020   **So, W.**, & Duarte, F. <u>Cartographers of North Korea: Who Are They and What Are the Technical, Political, and Social Issues Involved in Mapping North Korea.</u> *Geoforum*, 110, 147–156.

2020   **So, W.**, Bogucka, E. P., Scepanovic, S., Joglekar, S., Zhou, K., & Quercia, D. <u>Humane Visual AI: Telling the Stories behind a Medical Condition.</u> *IEEE Transactions on Visualization and Computer Graphics*, 678–688.

2020   Bogucka, E. P., Constantinides, M., Aiello, L. M., Quercia, D., **So, W.**, & Bancilhon, M. <u>Cartographic Design of Cultural Maps.</u> *IEEE Computer Graphics and Applications*, 12-20.

Under Review and In Progress

So, W., Aizman, A., Navalkha, C., & D'Ignazio, C. **Housing Data Politics: Inequitable Open Data, Informal Networks, and Strategic Neutrality in the Pursuit of Justice.** Under review at *Journal of Urban Affairs*.

Gade, A. & **So, W. Technically Neutral, Effectively Biased: Public Housing in the Era of Digitized Tenant Screening.**

So, W., Holloway, H., & Geller, D. **Screening and Being Screened: A Survey Analysis of Landlords and Tenants.**

Book Chapters, Workshop Papers, and Other Publications

2022   D'Ignazio, C., **So, W.**, & Ntim-Addae, N. <u>The Audit: Perils and Possibilities for Contesting Oppression in the Heritage Landscape.</u> *In The Routledge Handbook of Architecture, Urban Space and Politics, Volume I. Routledge.*

2022   Bhargava, R., Suresh, H., Dogan, A., **So, W.**, Suarez Val, H., Fumega, S., and D'Ignazio, C. <u>News as Data for Activists: A Case Study in Feminicide Counterdata Production</u>. *Computation + Journalism 2022. New York, NY.*

2020   D'Ignazio, C., Val, H., Fumega, S., Suresh, H., Cruxen, I., **So, W.**, Martinez, A., and Garcia-Montes, M. <u>Feminicide & Machine Learning: Detecting Gender-based Violence to Strengthen Civil Sector Activism.</u> *MD4SG '20: 4th Workshop on Mechanism Design for Social Good*, August 17-19, 2020. **New Horizons award for most inspiring paper.**

2016   Kang, E. & **So, W** <u>multilingual.js: A Javascript Library for Multilingual Typesetting.</u> *LetterSeed 13: Technology and Typography. Korean Society of Typography. Seoul, Korea.*

2016   **So, W.**, Koh, A., & Kang, E. **Zeroboard, Easy-to-Install BBS—Rough Sketch for a Techno-Cultural Maker History of the Korean Internet.** *Open Net Research Paper Competition, Seoul, Korea.*

Reports and Essays

2024   TechEquity Collaborative & **So, W**. <u>Screened Out of Housing: How AI-Powered Tenant Screening Hurts Renters.</u>

2021   McElroy, E. & **So, W**. <u>Landlord Tech in Covid-19 Times</u>. *Metropolitics*.

2021   McElroy, E., **So, W.**, & Weber, N. <u>Keeping an Eye on Landlord Tech</u>. (2021). *Shelterforce*.

2017   **So, W**. <u>Urban Data Visualization</u>. *May 2017 Landscape Architecture Korea, Seoul, Korea.*

2017   **So, W**. **Seoul Libre Maps.** In <u>Imminent Commons: Live from Seoul</u>. *Actar Publishers. New York, NY.*

Selected Data Visualizations

2021	Shin, Y., Kirkpatrick, N., D'Ignazio, C., & **So, W**. Columbus Is Still Honored in 6,000 Places across the U.S. *Washington Post*.
2021	Cheonggyecheon Anti Gentrification Alliance & **So, W**. Industry & Trade Ecosystem of Cheongyecheon, Euljiro.
2020	Landlord Tech Watch. Project of *the Anti-Eviction Mapping Project*.
2021	**Singapore Calling.** *MIT Senseable City Lab Project*.
2020	**Cartographers of North Korea.** *Independent Project*.
2016	**Treepedia.** *MIT Senseable City Lab Project*.

Teaching Experience

'21, '23, '24	**MIT: Workshop on Geographic Information Systems (GIS)** (Graduate level; evaluation: avg 6.5/7.0)
'21, '23, '24	**MIT: Introduction to GIS and Spatial Analysis** (Graduate level; evaluation: avg 6.8/7.0)
Fall 2022	**MIT: Quantitative Reasoning and Statistical Methods for Planning** (Graduate level; evaluation: 6.8/7.0)
Spr 2022	**MIT: Graduate Thesis Clinic** (Graduate level; evaluation: 6.9/7.0)

Professional Experience

2021–2025	**Graduate Teaching Assistant,** *Massachusetts Institute of Technology (MIT)*
2020–2025	**Research Assistant & Technical Lead,** *Data + Feminism Lab, MIT DUSP*
2019–2020	**Researcher,** *MIT Visualization Group, MIT CSAIL*
2018–2020	**Graduate Research Assistant,** *MIT Senseable City Lab, MIT DUSP*
2019-	**Research Intern,** *Nokia Bell Labs, Social Dynamics Group, Cambridge, UK*
2017–2018	**Data Visualization Specialist,** *Singapore-MIT Alliance for Research and Technology*
2016	**Research Fellow & Data Visualization Specialist,** *MIT Senseable City Lab, MIT DUSP*
2017	**Curator,** *2017 Seoul Biennale of Architecture and Urbanism*
2011–2013	**Co-founder & Inside Director,** *Tumblbug inc*
2013–2014	**Designer & Developer,** *Anyang Public Art Project (APAP)*
2009–2011	**Web Designer (Korea Navy Reserve),** *Republic of Korea Navy Headquarters, Public Affairs Department*
2007–2008	**Web Designer,** *The Center for Youth and Cultural Studies, Yonsei University*

Fellowships and Grants

2023	**Mozilla Technology Fund** ($50,000)**,** *Mozilla Foundation*
2021	**Human Rights & Technology Fellowship** ($2,000) **,** *MIT Center for International Studies*
2021	**Harold Horowitz (1951) Student Research Fund** ($3,000), *School of Architecture and Planning, MIT*
2020	**MIT Presidential Fellowship,** *MIT*
'18-'20	**Graduate Academic Fellowship,** *Department of Urban Studies and Planning, MIT*

Selected Awards

2019   **<u>Gold Winner.</u>** *Kantar Information is Beautiful Awards. London, United Kingdom.*

2020   **<u>Honorable Mention.</u>** *Fast Co. Innovation by Design Awards (Data and Design). New York, NY.*

2017   **<u>Shortlist.</u>** *Kantar Information is Beautiful Awards. London, United Kingdom.*

2017   **Finalist.** *Fast Co. Innovation by Design Awards (Graphic Design and Data Visualization).* Treepedia.

2016   **Research Grant (Third Grade).** *Open Net Research Paper Competition. Seoul, Korea.*

2015   **Longlist.** *Kantar Information is Beautiful Awards. London, United Kingdom.*

2012   **Finalist.** *Adobe Design Achievement Awards (Browser Based Design). Toronto, Canada.*

2009   **Semi-Finalist.** *Adobe Design Achievement Awards (Application Development). New York, NY.*

2008   **Finalist.** *Adobe Design Achievement Awards (Designer-developer Collaboration). New York, NY.*

Selected Talks

Oct 2022   **Which Information Matters? Measuring Landlord Assessment of Tenant Screening Reports.** *National Consumer Law Center, Boston, MA.*

Dec 2021   **<u>Audit the Streets.</u>** *MIT Libraries & Programs in Digital Humanities, Cambridge, MA.*

Nov 2021   **<u>Act of Archiving as a Resistance: Mapping the Industry & Trade Ecosystem of Cheongyecheon, Euljiro, Seoul.</u>** *Graduate School of Design, Harvard University. Cambridge, MA.*

Oct 2021   **<u>Audit the Streets.</u>** *North American Cartographic Information Society (NACIS). Oklahoma City, Oklahoma.*

Oct 2021   **Artist Talk.** *Korean University of Arts, Seoul, Korea*

Jan 2021   **What could an antisubordination visualization be?** *Taubman College of Architecture and Planning, University of Michigan, Ann Arbor, Michigan.*

Oct 2020   **Artist Talk.** *Boston University, Boston, MA.*

Oct 2019   **Cartographers of North Korea.** *IEEE VIS Arts Program: Artist Talk. Vancouver, BC, Canada.*

Oct 2017   **Treepedia: for civically minded people who care about green city.** *IEEE VIS Arts Program: Artist Talk. Phoenix, AZ.*

May 2017   **Urban Data Visualization.** *Singapore-MIT Alliance for Research and Technology. Singapore.*

Jun 2017   **Open Source Map and Seoul: History of Technology, Commons and Open Source.** *2017 Seoul Biennale of Architecture and Urbanism. Dongdaemun Design Plaza. Seoul, Korea.*

Oct 2016   **(Individual)-[Collaboration]-(Individual)=Creative Communities.** *Boston Tech Poetics. Boston, MA.*

Jun 2016   **Creative Communities: South Korea Case Study.** *Boston Civic Media. Microsoft NERD Center.*

Selected Exhibitions

2021   **<u>Cartographers of North Korea.</u>** *2021 Seoul Biennale of Arvchitecture and Urbanism, Seoul, Korea.*

2019   **<u>Balancing Art: Urbanism & Emerging Technologies.</u>** *Boston Society of Architects/AIA. Boston, MA.*

2019   **<u>From Point A to Point B.</u>** *Data Through Design Exhibition. The New Lab. Brookyln, NY.*

2017   **Treepedia & Underworlds.** *Big Bang Data. MIT Museum. Cambridge, MA.*

2017   **Seoul Libre Maps.** *2017 Seoul Biennale of Architecture and Urbanism. Dongdaemun Design Plaza. Seoul, Korea.*

2016   **Korean Internet Tour Guide.** *SeMA Biennale Mediacity Seoul 2016. Seoul Museum of Art. Seoul, Korea.*

2016   **Small World: Graphic Designers.** *Graphic Design, 2005-2015, Seoul. Ilmin Museum of Art. Seoul, Korea.*

2014   **Water Conflict Map 3000 BC-2014.** *Waterscapes: Politics of Water. Kumho Museum of Art. Seoul, Korea.*

Service

Reviewing

ACM FAccT, ACM EAAMO, Journal of Planning Education and Research (JPER), Journal of Urban Affairs, Housing Policy Debate, Environment and Planning B, Journal of Law and Empirical Analysis, International Journal of Housing Policy, Big Data & Society, Housing Studies

Committee

PhD Admission Committee 2022-2023 (MIT DUSP). PhD Committee 2020 (MIT DUSP), Master in City Planning Admission Committee 2020 (MIT DUSP).

Press

2024

OpenAI's Chatbot Shows Racial Bias in Advising Home Buyers and Renters. *New Scientist.*

2023

Artificial Intelligence Is Driving Discrimination in the Housing Market. *Jacobin.*

2022

'Fair' AI could help redress bias against Black US homebuyers. *New Scientist.*

2021

Columbus Is Still Honored in 6,000 Places across the U.S. *Washington Post.*

2017

Not a concrete jungle: Singapore beats 16 cities in green urban areas. *Strait Times*