

Haoyu Yue

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Urban Infrastructure Lab, Gould Hall, 3950 University Way NE, Seattle, Washington, 98195

Research Interests

Climate, Clean Energy and Infrastructure Planning, AI for Public Goods/Urban Planning

Education

- 2020 - **University of Washington** – Seattle, WA
Interdisciplinary Ph.D. in Urban Design and Planning
Committee: Jan Whittington, Qing Shen
Master of Urban Planning in Urban Informatics
Advisors: Jan Whittington, Arthur Acolin (Real Estate)
Certificate in Social Statistics, *Center for Statistics and the Social Science*
Certificate in Public Policy and Management, *School of Public Policy and Governance*
Certificate in Clean Energy Science, Engineering, and Society, *Clean Energy Institute*
- 2020 **Central South University** – Changsha, China
Bachelor of Engineering in Urban and Rural Planning

Experience

- 2024 - **Microsoft Research** – Redmond, WA
AI & Society Fellow Program – AI-powered Community Microgrids for Resiliency and Equity
- 2024 - **Climate Solutions International** – Seattle, WA
Affiliated Researcher
- 2021 - **University of Washington** – Seattle, WA
Research Assistant, Urban Infrastructure Lab
Teaching Assistant, Department of Urban Design and Planning
- 2020 **Shenzhen Urban Planning & Land Resource Research Center** – Shenzhen, China
Intern, Land Consolidation Research Institute

Research Projects

- 2025 **Planning for Solar investment at the Convergence of Resilience and Equity (SCORE)**
U.S. Department of Energy | PI: Nick Grue (NREL); Co-PI: Jan Whittington
- 2024 **Washington State Community Solar Economic Impact Assessment**
Coalition for Community Solar Access | PI: Jan Whittington
- Web-based Application for Climate-smart Capital Investment**
Climate Solutions International | PI: Sofia Dermisi
- Mobility Hub Electrification Blueprint**
Mobility Innovation Center with King County Metro, Sound Transit, and Seattle City Light | PI: Jan Whittington; Co-PIs: Chris Lee, Rachel Berney
- 2023 **Solar and Transportation Electrification for the University of Washington**
UW Transportation Services | PI: Jan Whittington
- Climate-smart Capital Investment Plan for Montgomery County, MD**
Montgomery County | PI: Jan Whittington; Co-PI: Adrienne Greve (Cal Poly)
- 2022 **Ultra High Speed Ground Transport: An Evaluation**
Challenge Seattle, Mobility Innovation Center | PI: Jan Whittington; Co-PI: Qing Shen

2021 **Social Vulnerability & Resilience during Covid-19 Pandemic**
Urban AI + Resilience Lab, UTSA | Collaborator: Wei Zhai

Publications

- 2025 Ning, S., Yue, H., Whittington, J. (2025). *Economic Impact Analysis of Community Solar Programs for the State of Washington*. Seattle, WA: University of Washington.
- 2024 Whittington, J., Berney, R., Lee, H.W., Treece, B., Ning, S., Chen, C., Muiruri, K., Yue, H., & Machala, T. (2024). *Electrified Mobility Hubs: A Blueprint for the Future of Transit Infrastructure*. Seattle, WA: Mobility Innovation Center, University of Washington.
- 2023 Whittington, J., Shen, Q., Sun, F., Ning, S., Yue, H., Chen, C., & McMichael, R. (2023). *Keeping it on the Tracks: High-speed Rail Success and Lessons Learned*. Seattle, WA: Mobility Innovation Center, University of Washington.
- 2022 Yue, H. (2022). Does Climate Investment Funding Intensify Green Gentrification in San Francisco-Oakland-Berkeley Bay Area?. University of Washington.
- Zhai, W., Yue, H., & Deng, Y. (2022). Examining the Association Between Green Space and Viral Transmission of COVID-19 during the Early Outbreak. *Applied Geography*, 147, 102768, 9–14.
- Zhai, W., & Yue, H. (2022). Economic Resilience during COVID-19: An Insight from Permanent Business Closures. *Environment and Planning A: Economy and Space*, 54(2), 219-221.

Honors and Scholarships

- 2025 Graduate Student Conference Awards (Graduate School, University of Washington – \$500)
- 2024 - 25 Microsoft Research AI & Society Fellowship (Microsoft Research – \$45,000)
- 2024 Urban Design and Planning Special Service Recognition Award (Department of Urban Design and Planning, University of Washington)
- 2023 Spatial Social Network Workshop Graduate Travel Support (Georgia Tech – \$500)
- 2022 - 23 Hall-Ammerer-WRF Ph.D. Fellowship in Interdisciplinary Studies (Graduate School, University of Washington – \$50,000)
- 2021 Urban Design and Planning Student Scholarship (University of Washington – \$1,500)
- Smart City Hackathon – Second Prize (University of Texas, Austin – \$500)
- 2018 Esri Chinese College GeoDesign Prize (Esri China, Chinese Society for Geodesy, Photogrammetry and Cartography)
- 2016 - 19 Annual Undergraduate Student Scholarship × 4 (Central South University)

Teaching and Mentorship

- 2025 URBAN 576/CET 586: Pedestrian Travel, Land Use, and Urban Form (spring, graduate elective, teaching assistant for Rachel Berney)
- 2024 URBAN 598: Doctoral Colloquium (spring and autumn, co-organizer, with Siman Ning)
- 2023 - 25 URBAN 498/598/ENGR 497: Vertically Integrated Project - UW Solar Group (each quarter, co-advisor, with Jan Whittington)

Mentorship

- 2024 Cecilia Hung, Yongzhe Jiang, Matilda Huang, Yifan Wang, Master Student in Technology Innovation, University of Washington, *AI-powered Community Energy Platform*, co-adviser with Peeyush Kumar and Jan Whittington.
- Mengyin He, Kelsey Mara, Ni Zhang, MBA Student, Foster School of Business, University of Washington, *Enabling Access to Finance for Tribal Ownership of Renewable Energy*, co-adviser with Phillip Bruner and Christian Phillips.

- 2023 Chris Ge, Namratha Shivaraju, Yvonne Yang, Master Student in Technology Innovation, University of Washington, *Investing in Sustainability: Solar Farms for Sustainable Communities*, co-adviser with Peeyush Kumar and Jan Whittington.

Presentations

- 2025 Yue, Haoyu. "AI-powered Microgrids and Infrastructure for Community Resilience and Equity" *Microsoft AI & Society Research Talk Series*, Online, May 14, 2025.
 Yue, Haoyu, Jan Whittington, Siman Ning, Christian Phillips. "Actions to Investment: An Exploration of Complex Nexus Between Climate Action Plans and Capital Investment Plans" *International Conference on Urban Affairs*, Vancouver, Canada, April 15-19, 2025.
- 2024 Yue, Haoyu, Wei Zhai, Jan Whittington. "Plans to Action: Do Climate Action Plans Matter for Climate Investments?" *Annual Conference of the Association of Collegiate Schools of Planning*, Seattle, WA, November 7-9, 2024.
 Yue, Haoyu. "Artificial Intelligence as a Form of Infrastructure" *Microsoft Research AI & Society Fellows Workshop*, Boston, MA, October 16-17, 2024.
- 2022 Yue, Haoyu, Jan Whittington, Acolin Authur. "Does Climate Investment Funding Intensify Green Gentrification in Bay Area?" *Annual Conference of the Association of Collegiate Schools of Planning*, Toronto, Canada, November 3-6, 2022.
- 2021 Bae, Christine , Boyang Sa, Eric Guida, Haoyu Yue. "It Takes a Village to Make Urban Villages Work: Effects of Zoning and Land Use Policies on Property Value and Densification in Seattle." *Annual Conference of the Association of Collegiate Schools of Planning*, Online, October 7-23, 2021

Services

- 2025 Pacific Northwest Climate Ambassador – Washington State Climate Office
- 2024 Organizer – Ph.D. Symposium on Planning for a Changing Climate: Key Considerations
 Program Assistant – Urban@UW Initiative, University of Washington
- 2023 - 24 Student Representative – Steering Committee for the Interdisciplinary Ph.D. Program in Urban Design and Planning, University of Washington
- 2022 - 24 Reviewer – Humanities and Social Sciences Communications; Air Quality, Atmosphere & Health

Memberships

- 2022 – Student member, Association of Collegiate Schools of Planning
 Student member, American Association of Geographers
- 2020 – Student member, International Association for China Planning
 Student member, American Planning Association

Technical Skills

Programming languages

Python, R, SQL, HTML/JavaScript/CSS, D3.js

Software

LaTeX, Git, ArcGIS, QGIS, Microsoft Office Suite, SketchUp, Adobe Creative Cloud Suite

Languages

English (fluent), Chinese (native)