

# Zehui Yin

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## Education

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<i>McMaster University</i> , PhD in Geography	9/2024 - Present
School of Earth, Environment & Society Supervisor: <a href="#">Dr. Darren Scott</a>	Hamilton, Ontario, Canada
<i>University of Toronto Scarborough</i> , HBA	9/2020 - 6/2024
Major in Economics for Management Studies Minor in Geographic Information Science & Applied Statistics Certificate in Computational Social Science Graduated with High Distinction Cumulative GPA: 3.98 out of 4	Toronto, Ontario, Canada

## Honours & Awards

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<i>Esri Canada Center of Excellence Student of the Year</i>	2025
<i>Ontario Graduate Scholarship</i>	2025
C\$15,000 total merit-based scholarship to a graduate student for three consecutive terms jointly funded by the Government of Ontario and McMaster University	
<i>Kanaroglou Memorial Graduate Scholarship</i>	2025
C\$1,500 scholarship awarded to a graduate student specializing in transportation research within the School of Earth, Environment & Society	
<i>Graduation Prize in Management and Economics</i>	2024
C\$250 award for the top student graduating from the Department of Management and Economics	
<i>Governor General's Silver Medal</i>	2024
Highest academic standing upon graduation from a bachelor's degree program There are three silver medals awarded at the University of Toronto	
<i>University of Toronto Excellence Awards</i>	2023, 2024
C\$7,500 scholarship for undergraduate students to conduct summer research projects	
<i>Department of Human Geography Outstanding Academic Performance Award</i>	2024
Highest graduating cumulative GPA in the Minor in Geographic Information Systems	

<i>Vincent Bladen In-course Scholarships</i>	2023
C\$300 scholarship for exceptional academic achievement	
<i>Sotherton Wadhams In-course Scholar</i>	2023
C\$1,500 scholarship for high academic standing	
<i>University of Toronto Scarborough Dean's List</i>	2021, 2022, 2023
Annual GPA equal to or greater than 3.5 in the previous academic year	
<i>University of Toronto Scholar</i>	2021
C\$1,500 scholarship for top 20 students in the previous academic year	

## Professional Experiences

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Research Assistant, <i>TransLAB, McMaster University</i>	9/2024 - Present
Project 1: Hamilton Shared Micromobility (Bike Share and Shared E-scooter) Data	
Project 2: "Future Mobility in Canada Survey"	
Project 3: "Transportation Tomorrow Survey"	
Supervised by: <a href="#">Dr. Darren Scott</a>	
Research Assistant, <i>Suburban Mobilities Cluster, University of Toronto Scarborough</i>	11/2022 - 8/2024
Project 1: "Newcomers' Accessibility to Agencies in Scarborough"	
Project 2: "Metrolinx Service for OSAP Students at UTSC"	
Project 3: "Towards sustainable neighborhoods? Tensions and heterogeneous transport priorities among suburban residents"	
Project 4: "Evaluating the transit accessibility and equity of the Bus Rapid Transit (BRT) system: The case of Dar-es-Salaam, Tanzania"	
Project 5: "Toronto Cycling Survey"	
Project 6: "Neighbourhood Satisfaction in Scarborough: A Discrete Choice Analysis with Spatial Effects"	
Project 7: "Cycling evolution in Toronto (1999-2023)"	
Supervised by: <a href="#">Dr. Steven Farber</a> , <a href="#">Dr. Andre Cire</a> , and <a href="#">Dr. Ignacio Tiznado-Aitken</a>	

## Teaching Experiences

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<i>ENVSOCTY 4GS3 GIS Programming, McMaster University</i>	Fall 2025
Teaching Assistant for <a href="#">Dr. Darren Scott</a>	
Graded assignments and responded to student inquiries via email	
<i>ENVSOCTY 4GT3 Web GIS, McMaster University</i>	Fall 2025
Teaching Assistant for <a href="#">Patrick DeLuca</a>	
Graded assignments	

*ENVSOCY 3MA3* Research Methods, *McMaster University*

March 14, 2025

Guest Lecture: Introduction to Quantitative Analysis in Research

*ENVSOCY 4GA3* Applied Spatial Statistics, *McMaster University*

Winter 2025

Teaching Assistant for [Dr. Antonio Paez](#)

Conducted weekly lab sessions for two groups of approximately 24 students each

Graded assignments, midterm and final reflections

*ENVSOCY 2GI3* Geographic Information Systems, *McMaster University*

Fall 2024

Teaching Assistant for [Dr. Darren Scott](#)

Conducted weekly lab sessions for two groups of approximately 25 students each

Invigilated examinations and graded assignments and tests

*GGRA30H3* Geographic Information Systems (GIS) and Empirical Reasoning, *University of Toronto Scarborough*

Summer 2023

Teaching Assistant for [Dr. Shaila Jamal](#)

Conducted weekly lab sessions for around 30 students

Held weekly office hours to provide additional support

Invigilated examinations and graded assignments and tests

## Publications & Reports

**Yin, Z., & Scott, D. M. (2026).** Pedal preferences: GPS-based panel data insights into bike share traffic flow across membership groups. *Cities*, 170, 106703. <https://doi.org/10.1016/j.cities.2025.106703>

**Yin, Z., & Scott, D. M. (2026).** Decoding the first-and-last mile: Analyzing the transit connecting bike share GPS routes in Hamilton, Ontario with spatiotemporal distance decay. *Travel Behaviour and Society*, 42, 101122. <https://doi.org/10.1016/j.tbs.2025.101122>

**Yin, Z., Jamal, S., Tiznado-Aitken, I., & Farber, S. (2025).** What makes people satisfied with their Neighbourhoods? Exploring individual characteristics beyond sociodemographics in Scarborough, Ontario. *Applied Geography*, 183, 103738. <https://doi.org/10.1016/j.apgeog.2025.103738>

Tiznado-Aitken, I., **Yin, Z., & Farber, S. (2025).** Towards sustainable neighbourhoods? Tensions and heterogeneous transport priorities among suburban residents. *Transportation Research Part D: Transport and Environment*, 138, 104514. <https://doi.org/10.1016/j.trd.2024.104514>

Mwesigwa, L., **Yin, Z., & Farber, S. (2024).** Evaluating the level of access and equity of the bus rapid transit (BRT) system: The case of Dar-Es-Salaam, Tanzania. *Journal of Transport Geography*, 119, 103953. <https://doi.org/10.1016/j.jtrangeo.2024.103953>

**Yin, Z., Rybarczyk, G., Zheng, A., Su, L., Sun, B., & Yan, X. (2024).** Shared micromobility as a first- and last-mile transit solution? Spatiotemporal insights from a novel dataset. *Journal of Transport Geography*, 114, 103778. <https://doi.org/10.1016/j.jtrangeo.2023.103778>

Huang, E., **Yin, Z.**, Broaddus, A., & Yan, X. (2024). Shared e-scooters as a last-mile transit solution? Travel behavior insights from Los Angeles and Washington D.C. *Travel Behaviour and Society*, 34, 100663. <https://doi.org/10.1016/j.tbs.2023.100663>

Forristier, A., Yan, X., **Yin, Z.**, Zhao, X., Cova, T., Lovreglio, R., Nilsson, D., & Kuligowski, E. (2022). Survey of Evacuation Behavior in the 2021 Marshall Fire, Colorado. *Natural Hazards Center Quick Response Grant Report Series*, 349. Natural Hazards Center, University of Colorado Boulder. <https://hazards.colorado.edu/quick-response-report/survey-of-evacuation-behavior-in-the-2021-marshall-fire-colorado>

## Work in Progress

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Wheels Within Reach: Evaluating Bike Share Equity Impacts of a Pseudo-Free Student Pass Using Network-Distance-Based Kernel Density, *with Darren Scott*

Tracking cycling behaviour and comfort perceptions in Toronto: Trends from 1999 to 2023, *with Ignacio Tiznado-Aitken, and Steven Farber*

## Conference Presentations

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(Note: Presenters are underlined.)

**Yin, Z.**, & Scott, D. M. (2025). Decoding the first-and-last mile: Analyzing the transit connecting bike share GPS routes in Hamilton, Ontario with spatiotemporal distance decay. *ITE Toronto-Hamilton-Southwest Ontario Sections – Mini Transportation Conference*, Oakville, Ontario.

**Yin, Z.**, Rybarczyk, G., Zheng, A., Su, L., Sun, B., & Yan, X. (2024). Shared micromobility as a last-mile transit solution? Spatiotemporal insights from a novel dataset. *Inagural U.S. Department of Transportation Future of Transportation Summit*, Washington D.C.

**Yin, Z.**, Rybarczyk, G., Zheng, A., Su, L., Sun, B., & Yan, X. (2024). Shared micromobility as a first-and last-mile transit solution? Insights from a novel dataset. *Transportation Research Board 2024 Annual Meeting*, Washington D.C.

Mwesigwa, L., **Yin, Z.**, & Farber, S. (2024). Evaluating the Transit Accessibility and Equity of the Bus Rapid Transit (BRT) System: The Case of Dar-Es-Salaam, Tanzania. *Transportation Research Board 2024 Annual Meeting*, Washington D.C.

Tiznado-Aitken, I., **Yin, Z.**, & Farber, S. (2023). Towards sustainable neighborhoods? Heterogeneous transport priorities among suburban Scarborough residents. *NECTAR Cluster 6-7 Workshop – Sustainable neighborhoods: Urban and transport planning for sustainable urban living*, Coimbra, Portugal.

Huang, E., **Yin, Z.**, Broaddus, A., & Yan, X. (2023). Transit and shared e-scooter integration: Travel behavior insights from Los Angeles and Washington D.C. *Transportation Research Board 2023 Annual Meeting*, Washington D.C.

## **Invited Talks**

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“Pedal Preferences: GPS-Based Panel Data Insights into Bike Share Traffic Flow Across Membership Groups.” *Geographic Information Science (GIS) Day, McMaster University*, Hamilton, Ontario. November 19, 2025.

“Decoding the First-and-Last Mile: Analyzing the Transit Connecting Bike Share GPS Routes in Hamilton, Ontario with Spatiotemporal Distance Decay.” *School of Earth, Environment & Society Graduate Research Symposium, McMaster University*, Hamilton, Ontario. April 11, 2025.

“What Makes People Happy with Their Neighbourhoods? Exploring Individual Characteristics Beyond Sociodemographics in Scarborough, Ontario.” *Geographic Information Science (GIS) Day, McMaster University*, Hamilton, Ontario. November 21, 2024.

“What Makes People Happy with Their Neighbourhoods? Exploring Individual Characteristics Beyond Sociodemographics in Scarborough, Ontario.” *Suburban Mobilities Research Day, University of Toronto*. Toronto, Ontario. November 14, 2024.

“Toward Equitable Service Provision: A Catchment Area Analysis of The Bike Share Toronto System.” *Civic Hacknight #441, Civic Tech Toronto*. Toronto, Ontario. April 30, 2024. <https://civictech.ca/hacknights/441>

“Investment Priority on Transportation Infrastructures.” *Suburban Mobilities Cluster Day, University of Toronto*. Toronto, Ontario. June 9, 2023. <https://www.mobilitynetwork.utoronto.ca/suburban-mobilities-cluster-at-utsc-celebrates-its-first-research-day-with-a-focus-on-improving-transportation-at-scarborough>

## **Departmental Service**

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Student Associate, *Esri Canada GIS Centers of Excellence at McMaster* 2024 - Present

Member, *School of Earth, Environment & Society School Council* 2024 - 2025

Geography Representative, *School of Earth, Environment & Society Graduate Student Collective* 2024 - 2025

## **University Service**

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Member, *Social Science Student Research Ethics Committee (SocSciSREC), McMaster University* 2024 - Present

## **Professional Service**

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Manuscript Reviewer (Note: Number of completed reviews indicated in parentheses.)

*Humanities and Social Sciences Communications* (1), *Scientific Reports* (1), *Transportation* (2), *Transportation Research Board Annual Meeting* (4), *Journal of Cycling and Micromobility Research* (1), *Journal of Urban Technology* (1)

## **Languages**

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English: Full Professional Proficiency

Mandarin Chinese: Native Language

## **Research Interests**

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Spatial Analysis, Econometrics, Machine Learning, Transportation Planning, Public Transit, and Micromobility

## **Programming Languages & Software**

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Proficient: R (Spatial/GIS: *sf*, *terra*, *sp*, *raster*, *r5r*; Modelling: *apollo*, *tidymodels*; Visualization: *ggplot2*, *plotly*, *shiny*), ArcGIS Pro, ArcGIS Online, Markdown (R Markdown, Quarto), Microsoft Office suite

Working Experience: Python (Spatial/GIS: *GeoPandas*, *rioxarray*, *Rasterio*, *Xarray*, *ArcPy*; Modelling: *statsmodels*, *scikit-learn*, *PyTorch*; Visualization: *Matplotlib*, *seaborn*), SQL, QGIS, L<sup>A</sup>T<sub>E</sub>X, Overleaf, HTML, CSS, JavaScript, Leaflet, Turf.js, MapLibre GL JS, Mapbox GL JS, Git, GitHub

## **References**

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Available upon request