

Alexander Petric

PhD Candidate, University of Waterloo
226-343-2345 apetric@uwaterloo.ca

Education

University of Waterloo

Ph.D., Planning

Expected 2027

Social Sciences & Humanities Research Council Doctoral Fellowship Recipient

2023–2026

University of Guelph

M.Sc., Rural Planning & Development

2019

Thesis: [Beyond the Smart City: Assessing Open Data in rural Ontario](#)

Canada Graduate Scholarship-Master's Recipient, 2017–2018

M.Sc., Applied Mathematics

2016

Thesis: [A mathematical model for a *N. ceranae* Infection in an *A. mellifera* colony](#)

Ontario Graduate Scholarship Recipient, 2015–2016

Recent Work Experience

University of Waterloo, Waterloo, ON

Jan 2026–Apr 2026

Course instructor: Modelling the City

- Created and delivered weekly lectures/activities in person and online to impart information and engage students.
- Marked assignments and provided students with feedback.

University of Guelph, Guelph, ON

Jan 2026–Apr 2026

Course instructor: Economic Development in Rural Communities

- Created and delivered weekly lectures/activities to impart information and engage students.
- Marked assignments and provided students with feedback.
- Organized a series of guest speakers and a course field trip to enhance learning experience.

University of Waterloo, Waterloo, ON

Sep 2022–Apr 2023

Research Assistant—*Why did the 'Missing Middle' miss the train? Exploring barriers and solutions to intensified family housing in Waterloo Region; Supervisor: Dawn Parker*

- Analyzed census data and building permit data to compile data narrative assessing housing suitability and supply in Waterloo Region.
- Arranged and engaged in group meetings on housing barriers/opportunities in Waterloo Region.
- Developed, promoted, and assessed survey to identify residents to join housing working group.

University of Guelph, Guelph, ON

Sep 2014–Mar 2023

Research Assistant—*Examining place-based endowments in the periphery; Supervisor: Ryan Gibson*

- Organized data acquisition/analysis and writing for report studying intergenerational wealth transfers across Canada.
- Spearheaded series of interviews with rural Canadian community foundation representatives, and assembled report based on interview results.
- Managed research on provincial community investment fund policies across Canada, including conducting interviews, collecting numerical data, and distilling findings into publications.

Wilton Consulting Group, Fergus, ON

Jan 2020–Nov 2020

Research Associate

- Analyzed Census data and managed/manipulated shapefiles for company projects and reports.
- Managed survey and interview process to study agricultural trends for a local municipality.
- Supported interviews, policy research, and writing for reports on farmer mental health, promoting local agricultural businesses, regional agricultural sector strategy planning, and equine sector COVID-19 response briefs.

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Recent Volunteer Work

Jane's Walk St. Thomas, St. Thomas, ON

Apr 2026 – Present

- Founded operation and initiated series of educational and community-based walking tours in St. Thomas, ON, as part of the wider Jane's Walk movement.
- Planned inaugural walk, created website, promoted event, and led walk.

Univ. of Waterloo Agent-based Modelling Discussion Group, Waterloo, ON

Feb 2025 – Present

- Spearheaded creation of working group, including organizing call for interest, coordinating responses, and arranging meetings.
- Presented at meetings, selected topics/readings for discussion, guided discussions, and encouraged participation from a diverse group of attendees.

Recent Publications (R in margin = peer-reviewed)

Petric, A. T. (2025, December). Modelling effects of urban form on social connections and social capital. In *International Conference on Complex Networks and Their Applications* (pp. 385-396). Springer Nature Switzerland.

- R Law, J., & Petric, A. T. (2025). Neighbourhood risk factors and spatiotemporal trends for overdoses following cannabis legalization and pandemic restrictions in Toronto, Canada. *Health & Place*, 96(2025), 103557.
- R Petric, A. T., & Gibson, R. F. (2025). Hidden treasures: estimating intergenerational wealth transfers in rural Canada. *Regional Studies, Regional Science*, 12(1), 270-286.
- R Law, J., & Petric, A. T. (2024). Monitoring day and dark traffic collisions in Toronto neighbourhoods with implications for injury reduction and Vision Zero initiatives: A spatial analysis approach. *Accident Analysis & Prevention*, 207, 107728.
- R Petric, A. T., Parker, D. C., Geobey, S., & Wright, K. (2024). *Making room for everyone: Assessing housing needs and suitability in Waterloo Region, Ontario via time, space, and equity lenses*. Manuscript submitted for publication.
- R Reid, B., Petric, A., Levett, K., & Squires, E. (2023). Place-based generosity during the pandemic: Innovative rural philanthropic organizations' responses to COVID-19 and (re-) building resilient rural communities in Canada. *Local Development & Society*, 1-16.
- R Petric, A. T., & Gibson, R. F. (2022). Embedding rural capital? Community investment funds in Canada and their implications for rural communities. *Community Development*, 1-20.
- R Petric, A., Guzman-Novoa, E., & Eberl, H. J. (2017). A mathematical model for the interplay of Nosema infection and forager losses in honey bee colonies. *Journal of Biological Dynamics*, 11(sup2), 348-378.

Recent Presentations (I in margin = invited)

Petric, A. (2025, April). *Applying complex systems theory to social capital for theoretical insights*. Presentation at the Social Capital 2026 Conference, Online.

Petric, A. (2025, December). *Modelling effects of urban form on social connections and social capital*.

Presentation at the International Conference on Complex Networks & Their Applications, Binghamton, NY.

Petric, A. (2025, June). *Assessing effects of residential density and public space on resident social networks and social capital using an agent-based model*. Presentation at the International Network for Social Network Analysis Sunbelt Conference, Paris, France.

- I Petric, A., & Law, J. (2025, March). *Monitoring day and dark traffic collisions in Toronto neighbourhoods with implications for injury reduction and Vision Zero initiatives: A spatial analysis approach*. Presentation at the Illuminating Engineering Society Roadway Lighting Committee Meeting, Toronto, ON.