

Alexander Petric

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

Research focus

My research explores how the density and design of housing can impact social capital and social connections for individuals and communities. I am particularly interested in how “missing middle” housing can facilitate connections among residents and affect their quality of life compared to other forms of housing.

Education

University of Waterloo

Ph.D., Planning

Expected 2026

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 2024–Apr 2024

Research Assistant—*Supervisor: Dr. Jane Law*

- Developed research papers assessing spatial trends in overdoses and impacts of lighting on road safety in Toronto, ON.

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.
- Coordinated and joined group meetings on housing barriers and opportunities in Waterloo Region.

University of Guelph, Guelph, ON

Sep 2014–Mar 2023

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

- 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.

Rural Ontario Institute, Guelph, ON

May 2021–Sep 2021

Rural Data Analyst

- Created public-facing materials for navigating public data on rural social and economic trends.
- Developed fact sheet covering trends in rural business conditions during COVID-19 pandemic.

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.

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Recent Volunteer Work

- Univ. of Waterloo Agent-based Modelling Working 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.
- Knights of Columbus, Council 1507, Guelph, ON** Jul 2021 – Jun 2025
- Managed internal and external communications for council, including taking minutes, sending meeting notices, and managing council website.
 - Organized social events for council and wider parish/geographical community.
- Environmental Design Graduate Student Society, Guelph, ON** Dec 2016 – Dec 2018
- Coordinated group meetings and collected and distributed meeting notes to ensure organization amongst group members around responsibilities and priorities.
 - Aided in organizing and executing events to engage students, drawing 25-50 students per event.
- City of Brampton Heritage Department, Brampton, ON** Feb 2017 – April 2017
- Assisted planners by retrieving and managing data from physical and digital records.
 - Produced graphics for city-run community events.

Publications (R in margin = peer-reviewed)

- R Law, J., & Petric, A. T. (2025). *Neighbourhood risk factors and spatiotemporal trends for overdoses following cannabis legalization and pandemic restrictions in Toronto, Canada*. Manuscript submitted for publication.
- 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.
- Petric, A., & Gibson, R. (2021). Facilitating rural economic development through place-based investments: Perspectives from across Canada. *Y Magazine*, 2021(6), 32-33.
- Petric, A., He, J., Bart, M., & Sully, N. (2017). Revitalizing Howick. *Ontario Planning Journal*, 32(4), 14-15.
- 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.

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Presentations (I in margin = invited)

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.

Petric, A. (2024, August). *Making room for everyone: Assessing housing needs and suitability in Waterloo Region, Ontario via time, space, and equity lenses*. Presentation at the European Regional Sciences Association Conference, Terceira, Portugal [Online component].

Petric, A., & Gibson, R. (2024, May). *Impacts from community foundations in rural Canada*. Presentation at the Northern Dialogues 2024 Conference, Whitehorse, YT.

Petric, A. (2023, September). *Housing, social capital, and complexity: A mixed-method research program*. Presentation at the Environment Graduate Student Conference, Waterloo, ON.

Petric, A. (2023, July). *Assessing housing supply, demand, and needs in Waterloo Region*. Presentation to the MIST Missing Middle Working Group, Waterloo, ON.

Petric, A., & Gibson, R. (2022, November). *Estimating rural Canada's intergenerational wealth transfer: Application in selected Ontario communities*. Presentation at the Northern Directions 2022 Conference, North Bay, ON.

Petric, A., & Gibson, R. (2021, September). *Embedding local capital: Lessons from community investment fund programs in Canada*. Presentation at the 33rd Annual Canadian Rural Revitalization Conference, Online.

Petric, A., & Gibson, R. (2019, October). *A glimpse of rural philanthropy in Canada*. Poster presented at the 31st Annual Canadian Rural Revitalization Foundation Conference, St. John's, NL.

Petric, A. (2018, October). *Opportunities and obstacles for open data in rural Canada*. Presented at Health & Shared Prosperity: 30th Canadian Rural Revitalization Foundation Conference, Saskatoon, SK.

Wylie, B., Weeden, A., Gaspard, V., & Petric, A. (2018, May). *Community continuum: Rural/Urban and the missing middle in open government*. Panel discussion at GOOD 2018 – Open Data Conference, Barrie, ON.

Petric, A. (2015, October). *Mathematical modelling of honeybee populations, some of their diseases, and other stressors*. Presented at the 5th International Conference on Mathematical Modelling and Analysis of Populations in Biological Systems, University of Western Ontario, London, ON.