

# Christopher Belanger

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## **EDUCATION**

**University of Ottawa**  
**MBA, 2021**

**University of Toronto**  
**PhD, Philosophy of Modern Physics, 2015**  
**BSc Hon, Physics and Mathematics, 2007**

## **EMPLOYMENT EXPERIENCE**

**University of Ottawa Faculty of Medicine, Postdoctoral Fellow, Jan. 2022 – Dec. 2022 (*expected*)**

- A one-year fellowship to research the impacts of virtual care models in rural Ontario, with a focus on the Renfrew County Virtual Triage and Assessment Centre (VTAC) using health administrative data from ICES.
- Researching computational methods for measuring geospatial access to healthcare, which is expected to produce new methods and open-source tools to enable wider use of free network analysis tools.
- Supervised by Dr. Lise Bjerre, University of Ottawa and Institut du Savoir Montfort Chair in Family Medicine.

**Ottawa Neighbourhood Study, Data Scientist, Sept. 2020 - Present.**

- Led data collection and analysis for a comprehensive study of inequities in Ottawa's food environment.
- Led analytics for a project with the *Institut du Savoir Montfort* to study inequities in travel times to primary care between Ottawa's Francophone population as compared to the general population (*publication forthcoming*).
- Streamlined internal data processes, including a custom R package, to automate reporting and data activities.

**Natural Resources Canada, Policy Advisor: Strategic Science Policy, May 2018 - Sept. 2019.**

- Led the skills and diversity stream of NRCan's 2019 Medium-Term Planning (MTP), delivering an evidence-based cross-Department plan that the Deputy Minister and ADMs praised for its high quality.
- Worked with executives to design and implement data-driven governance and control systems for the Canadian Council of Forest Ministers (CCFM), strengthening accountability and tying results to decision-making.

**Ontario Ministry of Health and Long-Term Care,**

**Policy Advisor to the Assistant Deputy Minister: Health System Accountability, Apr. 2017-May 2018**

**Senior Program Consultant/Policy Analyst: eHealth Strategy & Investment Branch, Oct. 2014 - Apr. 2017**

- Provided direct policy and strategy advice to the ADM and Directors on primary care and home and community care.
- Led ministry negotiations on two >\$30M funding agreements for electronic medical records (EMRs).
- Led oversight for Ontario's investments in EMRs for community-based clinicians.

## **PUBLICATIONS (PEER-REVIEWED)**

Cambon, J., Hernangómez, D., Belanger, C., & Possenriede, D. (2021). tidygeocoder: An R package for geocoding. *Journal of Open Source Software*, 6(65), 3544. <https://doi.org/10.21105/joss.03544>

Lewis, C. T., & Belanger, C. (2014). The generality of scientific models: A measure theoretic approach. *Synthese*, 192(1), 269–285. <https://doi.org/10.1007/s11229-014-0567-2>

Belanger, C. (2013). On two mathematical definitions of observational equivalence: Manifest isomorphism and reconsidered. *Studies in History and Philosophy of Science Part B: Studies in History and Philosophy of Modern Physics*, 44(2), 69–76. <https://doi.org/10.1016/j.shpsb.2012.11.001>

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## **PUBLICATIONS UNDER PEER REVIEW**

Mulvey, M., Belanger, C., & Bakker, D. Working it Out: Consumer Response to the Service Disruption of Gym Closures during the Pandemic. *Under review.*

Belanger, C., Pond, G., & Boatman, M., & Mangotich, M. Road Safety in the Canadian Army: Review and Recommendations. *Under review.*

## **SELECTED WORKS IN PROGRESS**

Bjerre, L., Belanger, C., Carr, K., Peixoto, C. A geospatial analysis of disparities in access to primary care for official language and other linguistic minorities in Ottawa, Ontario.

Belanger, C., Chreim, S., Bonaccio, S. Feeding the Beast: The Experience of Meaninglessness at Work in the Canadian Public Service.

## **PUBLISHED R PACKAGES (OPEN-SOURCE PEER-REVIEWED DATA SCIENCE SOFTWARE)**

Valhallr (2021). Creator, author.

- A tidy R interface to the Valhalla engine for vehicle routing, isochrones, and origin-destination analyses.

storywranglr (2021). Creator, author.

- Explore Twitter trends with the 'Storywrangler' API.

tidygeocoder (2021). Author, Google Maps module.

- A unified R interface to several online geocoding services.

## **GRANTS, AWARDS, AND SCHOLARSHIPS**

- **2020 Pierre Maurer Metropolitan Life Scholarship:** For achieving the highest average grade of uOttawa's intensive MBA cohort.
- **2020 MBA Alumni Association Award:** For a high-impact data science project in support of the Ottawa Food Bank.
- **2020 James F. Roache Award:** For demonstrating the highest outstanding ethical standards in uOttawa's MBA program.
- **2011 Ontario Graduate Scholarship**
- **2009-2010: SSHRC Doctoral Fellowship**

## **SELECTED DATA-SCIENCE PROJECTS**

### **Studying Inequities in Travel Times to Primary Care and Mental-Health Care in Renfrew County.**

- With Renfrew County and the *Institut du Saviour Montfort*, this project calculated and analyzed travel times to primary health care and mental health care for residents of Renfrew County, Ontario.

### **Optimizing Food Bank Locations.**

- Worked with the Ottawa Food Bank to study optimal locations to minimize travel clients' burden. This work, done with a co-author, won the 2020 Telfer MBA Alumni Association Award.

### **Social-Media Analysis of Ageist Discourse on Twitter.**

- Combined quantitative methods with qualitative content analysis to study online sentiments related to ageism expressed on Twitter combining data sources from Google Trends, news articles, and Twitter.

### **Predicting Consumer Ratings from Review Text.**

- Created a natural-language processing model to predict customer reviews from text ratings.