

Spencer A. Arbuckle, PhD[Personal Website](#) | [LinkedIn](#) | [GitHub](#) | [Google Scholar](#)

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Self-motivated and curious with 10 years of data science experience in research and government sectors, I have a knack for figuring out what the thorny problems are and devising data-driven ways to solve them. My work spans several themes including public health, neuroscience, and computational pipeline development.

SELECTED PROFESSIONAL EXPERIENCE**Public Health Data Scientist**, Statistics Canada 06/2022 – present

- Identify, develop, pitch, and implement programs that modernize public health statistical operations
- Wrote web scrapers (xml2 in R) to pull and organize data from over 60,000 webpages into a linkable database, resulting in a 10-fold decrease in data collection time
- Experimented with machine learning models to extract food information from photos and natural language processing of online reviews of health care facilities
- Designed geospatial models (sf in R) to reveal fine-grained insights into patient access to health care, and communicated compelling data stories through interactive visualizations (leaflet)

Neurotechnology Course Developer, Queen's University 02/2022 – present

- Led the development of an interactive online course about neuroimaging and medical neurotechnology for an interdisciplinary audience (with coding exercises written in Python)
- Established external relations with private neurotech companies to demo new medical technology
- Secured nearly \$1,000,000 CAD in competitive funding from Ontario Government

Lead Analyst, Canadian Science Policy Centre 02/2022 – present

- Led a diverse team of 14 individuals on the development, collection, and analysis of 4 surveys for private, government, and scientific audiences
- Delivered annual consultation presentation to communicate data insights to representatives from 50 external financial sponsors

Computational Neuroscientist, University of Western Ontario 01/2016 – 10/2021

- Managed 4 international research projects which resulted in 8 peer-reviewed scientific journal articles
- Presented projects at 12 international conferences as well as invited lectures at Johns Hopkins University, Brown University, and Imperial College London
- Developed, evaluated, and implemented experimental devices for sensorimotor research
- Developed new Bayesian model pipeline for multivariate analysis of brain data (matlab & python)
- Secured over \$80,000 CAD in funding from competitive university and government awards
- Taught courses and led workshops in data science, statistics, and neural network models
- Invited technical expert reviewer for multiple international scientific journals and granting agencies

Lab Manager, University of Western Ontario 05/2014 – 08/2015

- Managed infrastructure (budget, equipment, ethics protocols, data storage) for 2 human perception and language research labs
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EDUCATION**PhD, Computational Neuroscience**, University of Western Ontario 01/2016 – 10/2021**BSc (Honours), Psychology**, Queen's University 01/2010 – 06/2014