Spencer A. Arbuckle, PhD

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PROFILE

Self-motivated and curious with 10 years of experience in all aspects of research and experiments, 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 human sensorimotor control and perception, computational pipeline development, and public health.

SELECTED PROFESSIONAL EXPERIENCE

Public Health Data Analyst, 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 30,000 webpages into a linkable database
- Designed geospatial models (sf in R) to estimate patient access to health care and diagnostic imaging services, and told 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 technologies and analysis for an interdisciplinary audience (coding exercises written in Python)
- Established external stakeholder relations with private neurotech companies to demo new tech
- Helped secure nearly $1,000,000 CAD in competitive program funding from Ontario Government

Research Project Lead, Canadian Science Policy Centre   *02/2022 – present*
- Led a diverse team of 14 individuals on the development, collection, and analysis of 4 surveys for public, government, and scientific audiences
- Delivered annual consultation presentation to 50 representatives from external financial sponsors

Computational Neuroscientist, University of Western Ontario   *01/2016 – 10/2021*
- Managed 4 international research projects which resulted in 8 peer-reviewed journal articles
- Presented projects at 12 international conferences as well as at Johns Hopkins University, Brown University, and Imperial College London
- Developed, evaluated, and implemented experimental devices for sensorimotor research
- Helped develop new computational pipeline for multivariate analysis of brain data (matlab & python)
- Secured over $80,000 CAD in funding from competitive university and government awards
- Taught courses in data science, statistics, and neural networks
- Invited reviewer for multiple international scientific journals and granting agencies

Research Technician, University of Western Ontario   *05/2014 – 08/2015*
- Managed infrastructure (budget, equipment, ethics protocols, data storage) for 2 human perception research labs

EDUCATION

PhD, Computational Neuroscience, University of Western Ontario   *01/2016 – 10/2021*

BSc (Honours), Psychology, Queen's University   *01/2010 – 06/2014*