

Michael Branion-Calles

GEOGRAPHER · EPIDEMIOLOGIST

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Summary

Current postdoctoral fellow with seven years experience in geographic and public health approaches to applied research. Expertise in quantitative epidemiological study design, analysis, interpretation of results and publication in scientific journals.

- Proficient in R, SQL, ArcGIS, QGIS
- Demonstrated skills in spatial and a-spatial data analysis
- Secured over \$160,000 in scholarship funding to support my graduate research
- Worked effectively within large international and interdisciplinary research projects
- Excellent communication and leadership skills
- Have 11 publications in peer-reviewed academic journals and have presented research at 13 academic conferences

Education

Simon Fraser University

PH.D. IN HEALTH SCIENCES

Burnaby, B.C.

September 2015 - April 2020

- Thesis: *Evaluating and utilizing crowdsourced data and population surveys in bicycling safety research*

University of Victoria

M.SC. IN GEOGRAPHY

Victoria, B.C.

September 2013 - July 2015

- Thesis: *Modelling and mapping regional indoor radon risk in British Columbia, Canada*

University of Victoria

B.SC. IN GEOGRAPHY WITH GEOMATICS CONCENTRATION

Victoria, B.C.

September 2008 - April 2013

- Graduated *With Distinction*

Research Experience

Ryerson University

POSTDOCTORAL FELLOW

Toronto, Ontario (Remote)

May 2020 - Present

- Leading research into injury risks amongst Canadian bicyclists and pedestrians within a large population-based linked dataset (over five million records) developed by Statistics Canada (CanCHEC)
- Conducting data processing, linkage and analysis within secure data environment in R
- Developed accurate case definitions for bicycling and pedestrian injuries based on ICD-10-CA codes

Simon Fraser University

PH.D. RESEARCH

Burnaby, B.C.

September 2015 - April 2020

- Critically evaluated utility of different types of data and collection methods for active transportation research
- Worked with range of different study designs and datasets including cross-sectional and longitudinal surveys, as well as spatial data
- Performed extensive statistical and spatial analysis using R
- Developed code to enable spatial clustering along polylines capabilities for R
- Collaborated with epidemiologists, engineers and geographers across Europe, United States and Canada
- Presented my thesis results at major international and national conferences for transportation research
- Published eight articles in scientific journals, including all four of my thesis chapters

University of Victoria

M.SC. RESEARCH

Victoria, B.C.

September 2013 - July 2015

- Developed a predictive model to map indoor radon risk in British Columbia and related results to trends in lung cancer mortality
- Collaborated with BC Centre for Disease Control to develop the study, conduct data analysis, interpret and write up the results
- Presented research at major international conferences for geographic research
- Published three articles in scientific journals, including both of my thesis chapters

Work Experience

Simon Fraser University

Burnaby, B.C.

SESSIONAL INSTRUCTOR

September - December 2017/2018

- Sessional Instructor of "Strategic Applications of GIS in Health" in the Faculty of Health Sciences, a combined undergraduate and graduate course
- Taught students the role of GIS-based techniques and approaches to analyzing, describing spatial data representing public health issues
- Prepared course material including lectures and a lab exam
- Supervised students as they developed their final, open-ended projects on mapping spatial access to healthy resources

Stantec Consulting

Calgary, AB

ACADEMIC SUBCONSULTANT

January - April 2018

- Used spatial clustering techniques to evaluate spatial associations between area-level indicators of equity and spatial access to bicycle infrastructure in Calgary, AB
- Synthesized methods and results in clear, concise manner for a general audience

Bunt & Associates Transportation Planning and Engineering

Vancouver, B.C.

ACADEMIC CONSULTANT

May - August 2015

- Conducted narrative literature review on the safety effects of bicycling infrastructure design
- Condensed results into a pamphlet that transportation engineers and planners could readily integrate into their decision making processes

District of Sechelt

Sechelt, B.C.

GIS SUMMER STUDENT

May - August 2011/2012

- GIS based project work for municipal government
- Created a spatial database of sanitary infrastructure for the District of Sechelt's Enterprise GIS
- Converted paper fire hydrant maps to GIS based application for Sechelt fire department
- Created a GIS tool for the planning department to track development applications to expedite information retrieval for city planners

Scholarships & Awards

STUDENT AWARDS - SIMON FRASER UNIVERSITY

- 2020 **Mitacs Globalink Research Award**, \$6,000
- 2020 **Simon Fraser University Graduate Fellowship**, \$6,500
- 2019 **Simon Fraser University Graduate Fellowship**, \$6,500
- 2018 **Simon Fraser University Travel and Minor Research Award**, \$764
- 2018 **Simon Fraser University Graduate Fellowship**, \$9,150
- 2017 **Simon Fraser University Graduate Fellowship**, \$9,750
- 2016 **Simon Fraser University Graduate Fellowship**, \$3,250
- 2016 **SSHRC Doctoral Fellowship**, \$80,000
- 2015 **Simon Fraser University Graduate Fellowship**, \$6,500

STUDENT AWARDS - UNIVERSITY OF VICTORIA

- 2014 **Dr. Harold Foster Memorial Scholarship**, \$588
- 2014 **SSHRC Joseph Armand Bompardier CGS**, \$17,500
- 2013 **UVic Graduate Fellowship**, \$10,000
- 2012 **Lois M. Smith Athletes Award**, \$475
- 2012 **Vikes Athletic Award**, \$1,525
- 2012 **Presidents Scholarship**, \$1,000
- 2011 **Presidents Scholarship**, \$1,500
- 2010-12 **Canadian Interuniversity Sports Academic All-Canadian**, GPA above 80% while playing varsity sport