Michael **Branion-Calles**

Geographer · Epidemiologist

mbcalles | mbcalles | @mbrcalles | Michael Branion-Calles

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

Burnaby, B.C.

Ph.D. in Health Sciences

September 2015 - April 2020

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

University of Victoria

Victoria, B.C.

M.Sc. in Geography

September 2013 - July 2015

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

University of Victoria

Victoria, B.C.

B.Sc. in Geography with Geomatics Concentration

September 2008 - April 2013

- Graduated *With Distinction*

Research Experience

Ryerson University

Toronto, Ontario (Remote)

Postdoctoral Fellow

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 bicyling and pedestrian injuries based on ICD-10-CA codes

Simon Fraser University

Burnaby, B.C.

Ph.D. Research

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

Victoria, B.C.

M.Sc. research

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 scientic 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, decribing 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 *Janary - 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 infrastucture for the District of Sechelts 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 Bomardier 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