

Postdoctoral Research Fellow | Department of Statistics, University of British Columbia

About UBC

The University of British Columbia (UBC) is a globally recognized institution for teaching, learning, and research, consistently ranked among the top 20 public universities in the world. UBC researchers are constantly expanding the boundaries of knowledge and delivering innovations to improve lives and address the key challenges of our world. Internationally renowned, the Department of Statistics is located on the Point Grey campus of The University of British Columbia in Vancouver, B.C., Canada. Faculty members excel in both theory and methodology development as well as collaborative research with domain-area experts. The Department hosts a vibrant graduate program as well as thriving undergraduate programs, with recent initiatives positioning the Department as a hub for innovation in statistical education. The Vancouver campus of UBC is situated on traditional, ancestral, and unceded territory of the x^wməθk^wəy̓ əm (Musqueam).

Job Summary

The Department of Statistics [1] at the University of British Columbia invites applications for a postdoctoral research fellow under the supervision of Prof. Daniel J. McDonald [2]. Opportunities for collaboration across the Department of Statistics, the Faculty of Science, and the UBC community will be available. Collaboration with members of Carnegie Mellon's Delphi Research [3] Group [4] as part of its Insight Net Center [5] will be emphasized. While the start date is flexible, the selected candidate will ideally begin no later than September 2024.

Responsibilities

You will work with Prof. McDonald, his research team, and members of Carnegie Mellon's Delphi Research Group to develop statistical methods for epidemic detection, tracking and forecasting, and their use in decision making, both public and private. The postdoctoral fellow is expected to develop statistical methods and apply them to real-world studies, author and co-author manuscripts in peer-reviewed journals, disseminate research findings at professional conferences, collaborate with

public health professionals, create and manage open-source software, and mentor other graduate students.

Required Qualifications

- Ph.D. by the time of appointment. Doctoral Candidates in Statistics, Biostatistics, Data Science, Computer Science, and/or with experience in infectious disease modeling, regardless of the field of graduate studies are encouraged.
- Strong programming skills for statistical computing using R, Python, Julia, or C/C++.

Desired Experience

- Ability to lead: make plans, adapt to new opportunities, drive projects to completion
- Expertise in R package design and development
- Experience with GitHub and software development in a team setting
- Working knowledge of data science & computational statistics
- Background in Statistical Machine Learning (broadly construed) and / or time series
- Familiarity with building predictive models in applied settings (like epidemiology) is preferred, but not strictly necessary

How to Apply

Applicants should submit (1) a cover letter addressing their specific interest in this position, emphasizing directly related skills and experiences, and highlighting overall research interests and plan; (2) a curriculum vitae; (3) the names and contact information of three references.

Please send application materials and direct any questions regarding this position to Prof. Daniel J. McDonald at daniel@stat.ubc.ca [6]. Applications will be accepted until the position is filled, but submissions received before 1 April 2024 are guaranteed consideration.

Additional Information

Salary is competitive and commensurate with qualification. In addition to a career filled with purpose and opportunity, the University of British Columbia offers comprehensive resources and opportunities for all postdoctoral fellows. See <https://www.postdocs.ubc.ca/resources> [7] for more information.

Vancouver is a large and diverse city with excellent public transportation, bike lanes, and an international airport with direct flights throughout North America, Europe, and Asia. The city offers close proximity to winter sports, mountains, beaches, hiking trails, and other activities as well as rich cultural experiences. This position is intended to be a two-year appointment.

Opportunities to build teaching and mentorship experience may be available if desired.

We are seeking applications for a postdoctoral opportunity in biostatistics, focusing on the advancement of spatial survival models with an application to cancer. Our project aims to introduce an innovative cure rate survival model for spatially correlated cancer data, enhancing individual patient outcome predictions and revealing geographic patterns in survival rates. This research informs more effective healthcare resource allocation and interventions in specific regions.

Research Team

Our collaborative research team, led by Dr. Mahmoud Torabi and Dr. Cindy Feng, brings together diverse expertise in spatial and survival models, cancer epidemiology, and public health. Dr. Sara Israels, a Pediatric Oncologist with extensive experience, contributes clinical analysis and epidemiological knowledge, ensuring an interdisciplinary and comprehensive understanding of the research domain.

Responsibilities

As a postdoctoral fellow, the successful candidate will benefit from a tailored approach to teaching, training, and education. Opportunities include teaching undergraduate courses, participating in the SSC case study competition, and involvement in a Canadian Statistical Sciences Institute (CANSSI) summer training program. Regular meetings, interdisciplinary

collaboration, and professional development workshops will contribute to a well-rounded experience.

Application Process

Interested individuals are invited to submit their CV, a cover letter detailing their research interests and relevant experience, and contact information for three references to:

Dr. Mahmoud Torabi (Email: Mahmoud.Torabi@umanitoba.ca)

Dr. Cindy Feng (Email: cindy.feng@dal.ca)

Screening Process

Screening of applications will commence immediately. The funding and recruitment process will be through the CANSSI Distinguished Postdoctoral Fellowships. We appreciate all applicants in advance; only those selected for further consideration will receive information about the interview process.

We welcome highly motivated individuals with a passion for cutting-edge research at the intersection of biostatistics and cancer epidemiology. Join us in contributing to ground-breaking advancements in healthcare.

[1] <https://www.stat.ubc.ca/>

[2] <https://dajmcdon.github.io/>

[3] <https://delphi.cmu.edu/>

[4] <https://delphi.cmu.edu/>

[5]

<https://www.cdc.gov/forecast-outbreak-analytics/partners/insightnet/index.html>

[6] <mailto:daniel@stat.ubc.ca>

[7] <https://www.postdocs.ubc.ca/resources>