

Postdoctoral Research Fellowship in Health Data Analytics

Duration:	Two years
Stipend:	\$70,000 per year
Eligibility:	Completion of a doctoral degree within the past five years
Deadline for applications:	12 March 2018

Description:

The Institute of Biomedical Engineering (IBME) at the University of New Brunswick (UNB) invites applications for a unique postdoctoral research fellowship position in the area of population health and health data analytics, in collaboration with the Government of New Brunswick's Health Analytics Branch.

The successful applicant will work with Dr. Erik Scheme, the New Brunswick Innovation Research Chair in Medical Technologies, and Dr. Neeru Gupta, the Health Research Chair in Diabetes, at the University of New Brunswick (Fredericton, Canada). The ideal candidate is an independent, solution-oriented thinker with a strong background in biostatistics/epidemiology, machine learning, data mining, applying analytical rigor and discovering actionable insights and novel solutions to inform population health and health systems policy and practice. A special emphasis will be on the exploration and analysis of linked longitudinal health data for epidemiological, diagnostic, and predictive applications focusing on chronic diseases and other high-burden health conditions.

Working as part of a multi-disciplinary team, in collaboration with the Health Analytics Branch of the Government of New Brunswick, the candidate will have an opportunity to thrive and a place to engage in meaningful work that makes a positive impact on the lives of many. This novel partnership between UNB's Department of Sociology and Faculty of Engineering with the Government of New Brunswick offers a unique opportunity to conduct leading research and influence policy. This position will offer a multidisciplinary, supportive environment where you will grow personally and professionally as you learn from some of the most talented people in their fields.

Duties and Responsibilities:

- Statistical/spatial analysis and problem-solving using population and administrative health data to identify key diagnostic and predictive insights.
- Health data management, including data access/security practices, privacy compliance, data structure architecting, data processing and visualization, performance measurement, statistical analysis and data integration.
- Using machine learning and data mining principles to discover temporal and spatial trends and patterns, and support the development of algorithms to validate existing assumptions and processes.
- Engage and interact with a range of health stakeholders across the province, including Government, clinicians and regional health authorities as well as other health data partners (e.g., Statistics Canada, Canadian Institute for Health Information).
- Leading the dissemination of novel findings through scientific articles, presentations and research proposals.

Required Qualifications:

- Ph.D. in Medical/Health Informatics, Biostatistics, Epidemiology, Demography, Computer Science/Software Engineering, Biomedical/Electrical Engineering, Data Science, or a related field.

- Familiarity with data science tools (e.g., R, Shiny, GIS, Hadoop, d3, Python, SQL, SSRS, Oracle, Tableau...) and experience working with large-scale datasets.
- Demonstrated ability to work independently and as a member of a multidisciplinary team.
- Excellent written and spoken communication skills in English, as illustrated by a strong publication/presentation record.
- A willingness and ability to develop and lead new collaborations is essential.

Additional Assets:

- Experience in machine learning, statistics, inference algorithms, big data analytics, high-performance computing, data/information mining and visualization, and health research.
- Experience in public systems and working with high level Government officials.
- Written and spoken competency in French would be an asset.

Application Procedures:

To apply for this position, contact Dr. Erik Scheme (UNB Faculty of Engineering, Department of Electrical and Computer Engineering) at escheme@unb.ca and/or Dr. Neeru Gupta (UNB Department of Sociology) at ngupta@unb.ca before 12 March 2018.

Please include in your email:

- a detailed cover letter, including a statement of motivation and summary of relevant accomplishments
- a curriculum vitae in the Canadian Common CV format (enter your current data using the CIHR funding template at <https://ccv-cvc.ca> and include a system-generated PDF document)
- copies of transcripts
- the name and contact information of three references.

Additional Information:

- The anticipated start date is 1 September 2018 (negotiable).
- Funding for the Fellowship is provided through the Canadian Institutes of Health Research (CIHR) Health Systems Impact Fellowship program, with partner contribution from the New Brunswick Health Research Foundation. A complete application is due to CIHR by 5 April 2018. For more information on the funding opportunity, please visit: www.cihr-irsc.gc.ca/e/50612.html. This posting is for support in the application to the CIHR Health System Impact Fellowship. Additional resources may be made available through the UNB Innovation Research Chair in Medical Technologies and/or Health Research Chair in Diabetes.
- All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. Applicants should indicate current citizenship status.
- We thank all applicants for their interest but wish to advise that at only those selected for an interview will be contacted.

Application packages are to be submitted to:

Dr. Erik Scheme (escheme@unb.ca) and/or Dr. Neeru Gupta (ngupta@unb.ca)
 University of New Brunswick
 PO Box 4400, Fredericton, N.B., Canada E3B 5A3

Choose UNB to work with world-class faculty in a supportive environment, conduct meaningful research that makes a positive impact on the lives of many, and launch your career with a postdoctoral fellowship designed to transform you into the person you hope to be.