



Postdoctoral Fellowship

Schulich School of Engineering, University of Calgary

The [Healthy City Lab at the University of Calgary](#) and the [DRIVES Research Team at the Washington University in St. Louis](#) are seeking a postdoctoral fellow to work in a friendly, flexible, and intellectually engaging lab on projects exploring methods from Artificial Intelligence (AI) and Geographic Information Science (GIS) to investigate the long-term impact of Alzheimer's disease (AD) on driving behaviour and driving cessation among persons with and without preclinical AD. The fellow will work collaboratively with a multidisciplinary team comprising three faculty members (Drs. Sayeh Bayat, Ganesh Babulal, and Catherine Roe) and other research staff, and will be located in Calgary, AB.

We employ many methods to study driving, including a standardized road test, self-report driving habits, and naturalistic driving behaviour using the Driving Real-world In-Vehicle Evaluation System. We also collect a cadre of biomarkers to study disease pathology, including brain imaging (Positron Emission Tomography, Magnetic Resonance Imaging) and fluid-based (cerebrospinal fluid, blood/plasma) biomarkers.

Fellows will have opportunities to work with the team and independently on solving technical challenges that are motivated by real-life applications and gain experience in applying their knowledge in solving real-world problems in an interdisciplinary environment.

Interdisciplinary work will include engineering, computer science, psychology, neurology, gerontology, and other departments. Fellows are expected to publish 2-4 manuscripts per year and access and combine multiple datasets with cognitive and clinical assessments and fluid and imaging biomarkers.

Required Qualifications

Ph.D. degree, or submitted Ph.D. thesis, in engineering, computer science, or a related field.

Qualifications

Consideration will be given to applicants with machine learning (ML)/AI as a key component of their recent research and scholarship. Experience in GIS and building machine learning models using datasets in health and geospatial disciplines, such as medicine, health geography and epidemiology, would be an asset. Applicants with experience in other ML/GIS application domains are welcome.

Desired Skills

- Expertise in Python programming and ML/AI
- Demonstrated skills in quantitative analyses and Geographic Information Science (GIS) techniques (e.g. ArcGIS).
- Demonstrated skills in scientific writing, publications, and communication.
- Curiosity and passion to explore new concepts, methods and technologies.

Application Details

Please submit your application as a single PDF file with the subject line “Postdoctoral Application – [Your Name] to Sayeh Bayat, at sayeh.bayat@ucalgary.ca.

All applications must include:

1. Cover Letter that explains how the applicant’s program of research and publication record is appropriate for the position
2. Current curriculum vitae (CV)
3. Contact information including email addresses for two references to support the application

Applicants are encouraged to apply to this position immediately. Application packages will be accepted until the position is filled.

Additional Information

To learn more about postdoctoral scholar opportunities at the University of Calgary and all we have to offer, view our [Postdoc Careers website](#). For more information about the Schulich School of Engineering visit [Careers in the Schulich School of Engineering](#).

About the University of Calgary

The University of Calgary is Canada’s leading next-generation university – a living, growing and youthful institution that embraces change and opportunity with a can-do attitude. Located in the nation’s most enterprising city, the university is making tremendous progress on its Eyes High journey to be recognized as one of Canada’s top five research universities, grounded in innovative learning and teaching and fully integrated with the community it both serves and leads. The University of Calgary inspires and supports discovery, creativity and innovation across all disciplines. For more information, visit ucalgary.ca.

To succeed as one of Canada’s top universities, where new ideas are created, tested and applied through first-class teaching and research, the University of Calgary needs more of the best minds in our classrooms and labs. We’re increasing our scholarly capacity by investing in people who want to change the world, bringing the best and brightest to Calgary to form a global intellectual hub and achieve advances that matter to everyone. For more information visit research.ucalgary.ca/postdocs.

About Calgary, Alberta

Calgary is one of the world's cleanest cities and has been named one of the world's most livable cities for years. Calgary is a city of leaders – in business, community, philanthropy and

volunteerism. Calgarians benefit from the strongest economy in the nation and enjoy more days of sunshine per year than any other major Canadian city. Calgary is less than an hour's drive from the Rocky Mountains and boasts the most extensive urban pathway and bikeway network in North America.

The University of Calgary has launched an institution-wide Indigenous Strategy in line with the foundational goals of Eyes High, committing to creating a rich, vibrant, and culturally competent campus that welcomes and supports Indigenous Peoples, encourages Indigenous community partnerships, is inclusive of Indigenous perspectives in all that we do.

The University of Calgary recognizes that a diverse staff/faculty benefits and enriches the work, learning and research experiences of the entire campus and greater community. We are committed to removing barriers that have been historically encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will support their professional success while they are here.