L'Université de Montréal et de votre carrière.

Université de Montréal has more than 10,000 employees and is one of Canada's Top 100 Employers.

UdeM has Canada's 2nd largest student body and ranks among the top five Canadian research universities, receiving more than half a billion dollars in research funding every year.

Through the achievements of the members of its community, UdeM participates in building today's and tomorrow's world.

Assistant Professor in cognitive neuroscience and artificial intelligence

Department of Psychology
Faculty of Arts and Sciences

Position description

The Department of Psychology invites applications for a full-time, tenure-track position of Assistant Professor in **cognitive neuroscience and artificial intelligence**.

Research area(s) of the potential candidates should be **interdisciplinary and at the intersection of artificial intelligence (AI) and neuroscience**. Specific research directions of interest include but are not limited to: learning and memory; plasticity versus stability trade-off in lifelong, continual learning; network communication dynamics and its links to behavior; reinforcement learning and learning representations in biological and artificial neural networks; machine learning approaches to cognitive neuroscience as well as neuro-inspired methods for advancing state-of-art machine learning, and deep learning in particular. Research on analysis of language, speech, and dialogue in neurological or mental health disorders is also of interest. A strong background in statistics, signal processing, and dynamical systems, as well as experience in developmental neuroscience is a plus.

The appointed candidate will work closely with the Canada Excellence Research Chair (CERC) in autonomous AI, Irina Rish and **could be considered for a Canadian Institute for Advanced Research (CIFAR) AI chair**. Candidates demonstrating strong **affinities with the mission of Mila (Quebec AI Institute)** which includes advancing AI, machine learning and deep learning, will have higher chances of obtaining a CIFAR AI chair and a membership at Mila.

The Department of Psychology has 58 professors and is a leading force in cognitive and computational neuroscience, neuropsychology and mental health. It groups together several technological platforms on campus (e.g., MEG, EEG, TMS, augmented/virtual reality, motion capture, eye tracking) and maintains close links with affiliated research centers (hospitals and rehabilitation centers) within which several professors of the Department have developed research infrastructures (e.g., MRI, EEG, NIRS, polysomnography, smart apartment). In addition to our Department's faculty, the appointed candidate will have the opportunity to develop collaborations with researchers from other departments/ centers/institutes of the University in the areas of computer science, data science, and AI (namely Mila), neuroscience, and mental health.

The teaching that the appointed candidate will offer will be part of a state-of-the-art undergraduate training program in cognitive neuroscience, the only one of its kind in French in the world, as well as training in research at masters and doctoral level for which the computational neuroscience component is in full development. These programs draw on the advanced expertise of professors in the Department of Psychology, but also on strong interdepartmental and interfaculty collaborations. The appointed candidate will also be immersed in an environment that offers two doctorates in clinical neuropsychology. These contribute to the integration of knowledge in cognitive neuroscience and neuropsychology to better

understand, treat and rehabilitate health issues that affect cognition and mental health. At the heart of these programs is the University Psychology Clinic, a practical training environment for doctoral students that welcomes community users. A clinical research infrastructure is currently being developed within the Clinic to accelerate applied research in these areas.

Responsibilities

The appointed candidate will be expected to teach undergraduate and graduate courses in the Department's various programs (ex., B.Sc. in cognitive neuroscience, M.Sc. in psychology, and cognitive and computational neuroscience option of the Ph.D. in psychology), supervise graduate students, be active in research, publishing, and the diffusion of knowledge, and contribute to the reach and activities of the Department and the University.

Requirements

» Hold a doctorate (Ph.D.) in psychology, cognitive or computational neuroscience, or a related discipline and enough postdoctoral experience to rapidly develop a research program that will attract competitive research funding in computational neuroscience and machine learning;

» Asset : expertise in human brain imaging using cutting edge tools such as magnetoencephalography and functional magnetic resonance imaging;

» Strong research record in the field;

» Ability to provide high quality university teaching;

» An adequate knowledge of the French written and spoken language **or** a strong commitment to mastering the proficiency level required, in accordance to Université de Montréal's Language Policy. An institutional learning support program is offered to all professors wishing to learn French or improve their communication skills.

How to submit your application

The application file must consist of the following documents:

» A letter outlining your interests and career goals; to comply with the requirements of the government of canada, please include in your cover letter any of the following: "I am a citizen/permanent resident of canada" or "I am not a citizen/permanent resident of canada";

» A curriculum vitæ;

» A presentation of your teaching philosophy (no more than three pages);

» A presentation of your research program (no more than three pages);

» Copies of recent publications or research;

» Three letters of recommendation, which must be sent directly by their author to the Department Chair.

The application and the letters of recommendation must be sent **by e-mail** to the Chair of the Department of Psychology no later than December 1st, 2021:

> **Michelle McKerral**, Chair
> Department of Psychology
> Faculty of Arts and Sciences, Université de Montréal
> Phone: 514-343-6503
> Email: direction@psy.umontreal.ca

More information about the Department of psychology is available on its website www.psy.umontreal.ca.

Additional information about the position

Reference number	FAS 10-21/15
Application deadline	Until December 1st, 2021 inclusively
Salary	Université de Montréal offers competitive salaries and a full range of benefits
Starting date	On or after June 1st, 2022

Université de Montréal is strongly committed to fostering diversity and inclusion. Through its *Equal Access Employment Program (EAEP)*, UdeM invites applications from women, Aboriginal people, visible and ethnic minorities, as well as persons with disabilities. We will –confidentially – adapt our recruitment mechanisms to the specific needs of people with disabilities who request it.

UdeM embraces a broad and inclusive definition of diversity that goes beyond applicable laws, and therefore encourages all qualified individuals to apply, regardless of their characteristics. However, in accordance with Canadian immigration requirements, priority will be given to Canadians and permanent residents.

In order to measure the impact of its equity, diversity and inclusion actions, UdeM is collecting data on applicants identifying themselves with one of the groups targeted by the Equal Employment Opportunity Act, namely women, Aboriginal people, visible minorities, ethnic minorities and people with limitations. To this end, we thank you for completing this self-identification questionnaire. The information you provide through this form is **strictly confidential** and will be shared only with those responsible for the UdeM EAEP. If you wish, you may also indicate that you belong to one of the targeted groups in your cover letter, which will be reviewed by the selection committee and the assembly of peers.

Université de Montréal's application process allows all members of the Professor's Assembly to review the application files submitted. If you wish to keep your application confidential until the shortlist is established, please mention it in your application.