

**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 computational neuroscience and machine learning**

**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 **computational neuroscience and machine learning**.

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 computational 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 mental health or neurological 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.

Please note that this **position is conditional to the award of a Canada Excellence Research Chair (CERC)** to Université de Montréal, a decision that should be known in early January 2020 at the latest. The appointed candidate will work closely with the CERC chairholder 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 in cognitive neuroscience, the only one of its kind in French in the world, as well as training in research 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.
- » 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;
- » copies of recent publications or research;
- » a presentation of your research program (no more than three pages);
- » 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 January 24, 2020:

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

More information about the Department of psychology is available on its website at [www.psy.umontreal.ca](http://www.psy.umontreal.ca).

## Additional information about the position

<b>Reference number</b>	FAS 11-19/16
<b>Application deadline</b>	Until January 24, 2020 inclusively
<b>Salary</b>	Université de Montréal offers competitive salaries and a full range of benefits
<b>Starting date</b>	On or after June 1st, 2020

Université de Montréal is strongly committed to fostering diversity and inclusion. Through its *Equal Access Employment Program*, 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. We also welcome applications from candidates of all orientations and sexual identities. All qualified applicants are encouraged to apply; however, in accordance with Canadian immigration requirements, priority will be given to Canadians and permanent residents.

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.

