Job ID
33598

Faculty/Unit
VP Research – Western Research

Department
BrainsCAN

Employee Group
PMA - Professional and Managerial Association

Appointment Type
Continuing

Appointment Status
Regular Full-Time

Classification & Regular Hours

Hours per Week: 35

Salary Grade: 14

Please note, this is a wholly grant funded position.

About Western

With an international reputation for success, Western ranks as one of Canada's top research-intensive universities. Our research excellence expands knowledge and drives discovery with real-world application. Western also provides an exceptional employment experience, offering competitive salaries, a wide range of employment opportunities and one of Canada's most beautiful campuses.

About Us

The Mouse Translational Research Accelerator Platform (MouseTRAP) is a unique platform that directly addresses the urgent and critical challenge to translate neurocognitive discovery research in mouse models toward improvements in human health. It is centred on a touchscreen-based cognitive testing system for mice that enables flexible presentation of comprehensive test batteries involving visual stimuli at any location on a screen, as is increasingly done in human patient testing. Mice respond directly to the stimuli with their nose and positive reinforcers such as strawberry milkshake are delivered for correct choices. We have developed over 30 touchscreen tests for mice that tap into disease-relevant aspects of high-level cognition including attention, memory, executive function and motivation. MouseTRAP pairs these touchscreen-based cognitive tests with cutting-edge technologies to record or manipulate neuronal, glial or neurochemical activity, which makes it possible to match—millisecond by millisecond—what is happening in the brain with human-relevant cognitive performance. This can be done in healthy mice or in our extensive catalogue of next-generation disease models, making MouseTRAP a state-of-the-art platform for assessment of

robust, reproducible and human-relevant cognitive outcomes in mouse models, for either fundamental discovery research or development of evidence-based therapeutic interventions.

Responsibilities

The Neuroinformatics Software Engineer will support the expansion of the open access component of our platform (Mouse Translational Research Accelerator Platform, or MouseTRAP) known as MouseBytes. The role will work collaboratively with multiple members of MouseTRAP, including the Neuroinformatics Data Scientist to integrate ABETII software and expand databases that can be integrated into MouseBytes, including de-identified data from human participants, and new rodent cognitive tasks. The role will also be involved in the day-to-day maintenance of MouseBytes, and will define, develop, test, analyze, and maintain software tools, provide theoretical and technical advice and input into the algorithm creation processes, and conduct research and analysis to support the acquisition of new knowledge regarding relevant software developments.

Qualifications

Education:

- 3 year Community College Diploma in Computer Programming and Analysis
- Bachelor's or Master's Degree in Software Engineering, Computer Science or related discipline is preferred

Experience:

- 5 years of software design and administration experience in an academic or industry research environment
- Experience in Object-oriented programming
- Experience with SQL Database development and management
- Experience with .Net framework, ASP.NET, C# programming, and Typescript
- Experience with front-end web frameworks, like Angular
- Experience with Python or R
- Experience using statistical methodology to analyze data sources
- Experience with data visualization systems (e.g. TIBCO Spotfire) would be an asset

Knowledge, Skills & Abilities:

- Familiarity with version control systems (e.g. Git, SVN, and TFS)
- Familiarity with techniques for designing and developing databases
- Familiarity with techniques for updating, managing and extracting data from a research database
- Ability to search within and outside the formal boundaries of the organization for innovative ways to improve work
- Ability to investigate defined issues, solicit input, and suggest remedies and alternative approaches that meet the needs of the situation
- Attention to detail with an ability to retrieve, analyze and synthesize sizable amounts of data with an ability to complete detailed analytics and reports
- Competency to maintain confidentiality and treat sensitive information with discretion, with the ability to ensure confidentiality and privacy is maintained through the appropriate retention and destruction of information

- Strong verbal communication skills to clearly express ideas in an objective manner, and adapt communication style to suit the situation and audience
- Excellent troubleshooting ability along with hands-on expertise in technical support
- Ability to establish and build healthy working relations and partnerships with clients, peers and external stakeholders
- Ability to work within a flexible schedule to accommodate the University's events and activities
- Intermediate computer skills in Microsoft Office Suite and experience working with databases used to support the research project
- Possess a reputation for resourcefulness with a strong sense of accountability and initiative

Western Values Diversity

The University invites applications from all qualified individuals. Western is committed to employment equity and diversity in the workplace and welcomes applications from women, members of racialized groups/visible minorities, Indigenous persons, persons with disabilities, persons of any sexual orientation, and persons of any gender identity or gender expression.

Accommodations are available for applicants with disabilities throughout the recruitment process. If you require accommodations for interviews or other meetings, please contact Human Resources at hrhelp@uwo.ca or phone 519-661-2194.

Please Note:

We thank all applicants for their interest; however, only those chosen for an interview will be contacted.

https://recruit.uwo.ca
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