

## **Two Openings for Postdoctoral Research Fellows**

The INRS-UQO Unité Mixte de Recherche (UMR) on Cybersecurity and Digital Trust was created to advance the state-of-the-art in cybersecurity research not only in the Outaouais region, but across Québec and Canada. The Institut national de la recherche scientifique (INRS) brings together several world-renowned telecommunications experts specializing in the development of digital technologies, human factors analysis, and artificial intelligence (AI), and the University of Québec in Outaouais (UQO) brings decades of cybersecurity training and research, including in related disciplines such as cyberpsychology. Within the INRS-UQO UMR, cybersecurity is approached from an interdisciplinary perspective, centered on digital systems and software, but also giving importance to human aspects and emerging issues linked to AI. The UMR aims to develop the best cybersecurity practices for a constantly growing digital society and is conducting research in domains, including (but not limited to):

### **Protection of digital assets and human factors**

- Network security and intrusion detection systems
- Security of IoT devices, including advanced AI and Quantum Machine Learning techniques
- Software vulnerabilities
- Human factors in cybersecurity

### **Artificial intelligence and digital trust**

- Automated agents in cybersecurity
- Identifying and mitigating algorithmic biases
- Use and risks of generative AI for code generation, analysis, and broader societal impacts
- Explainable, responsible, and ethical AI
- Security challenges in federated learning
- AI's role in (cyber)psychology and (cyber)psychiatry

### **Trust in the digital world**

- Online information, disinformation, and deepfake detection
- Identity theft, privacy protection, and metaverse security
- Multimodal biometrics and forensics
- Efficient compression of large AI models for secure edge applications
- Blockchain technologies and their applications

The UMR is located at the UQO Lucien-Brault Campus in Gatineau (QC), situated next to Ottawa, Canada's capital. The Ottawa-Gatineau region is known as Canada's cybersecurity hub, with hundreds of companies working in cybersecurity, digital transformation, and digital identity, including several government facilities, such as the Canadian Centre for Cybersecurity, the Communications Security Establishment, and Public Safety Canada. Gatineau is also known for its excellent quality of life, provided in part by the presence of multiple parks and tranquil green spaces throughout the city.

To support the growth of the UMR and boost cybersecurity research excellence in the region, **we have two postdoctoral research fellowships with full funding** (minimum of CDN\$60,000/year, for up to three years, each) for both national and international researchers. Research topics can include those above, or other related topics. Interested candidates should send i) their CVs, ii) a cover letter motivating their application, highlighting their interests in cybersecurity and potential research theme, iii) copies of their three most relevant publications, and iv) names of three references to [umr-cybersec@uqo.ca](mailto:umr-cybersec@uqo.ca) by June 30, 2025. Short-listed candidates will be contacted for interviews throughout the month of July, or until both positions are filled. **Incomplete application packages will not be considered.** Applications from skilled and experienced members of the four designated groups (Indigenous peoples, individuals who are racialized, persons with disabilities, women and gender minorities), as per the Employment Equity Act guidelines, are highly encouraged.

More details about the UMR can be found at: <https://inrs.ca/la-recherche/chaieres-groupes-et-reseaux-de-recherche/repertoire-des-chaieres-groupes-et-reseaux-de-recherche/unite-mixte-de-recherche-inrs-uqo-sur-la-cybersecurite/>