Looking for Master's students in Engineering : Software, Information Technology or equivalent

We are looking for master's students in engineering in the field of information technology, computer science, user interfaces, or equivalent, for a project in the field of assisted rehabilitation robotics. **This project would start as soon as possible.**

Recently, our team built a manual wheelchair propulsion simulator with virtual reality, which combines visual immersion, tilt and force feedback. This simulator aims to train wheelchair users to become more independent and adopt a propulsion technique that protects their shoulders.

This project aims to improve visual immersion and to design and implement the graphical user interface of this simulator, so that it can be used by clinicians during training with their patients. More precisely :

- Increase visual immersion with an additional projector (wall, floor) to improve the representation of obstacles.
- Design and implement, jointly with clinicians, a user interface allowing the simulator to be operated.
- Validate the use of the simulator in the clinic with clinicians and their patients.

The student will be co-supervised by:

David Labbé, PhD, Eng.
Professor, École de technologie supérieure (ÉTS), Département de génie logiciel et des TI
Researcher, Laboratoire d'innovation ouverte en technologies de la santé (LIO),
CHUM Research Centre
https://lio.etsmtl.ca

Félix Chénier, PhD
Professor, UQAM, Département des sciences de l'activité physique
Researcher, Mobility and Adaptive Sports Research Lab, Centre for Interdisciplinary Research in Rehabilitation of Greater Montreal (CRIR)
https://felixchenier.uqam.ca

The candidate must demonstrate:

- Knowledge of the Unity environment
- Great autonomy, particularly in connection with programming and debugging
- Ease of understanding and designing complex systems
- Excellent motivation
- A good academic record
- Good ability to communicate orally and in writing

Please send your CV, transcripts and a cover letter by email to David.Labbe@etsmtl.ca