

Job Description

This position is part of the project "Targeting muscle strength loss due to hospitalization in older adults by blood-flow restriction combined with an EMG-driven serious game: GHOSTLY+", funded by the Research Foundation – Flanders (FWO). This Applied Biomedical Research (TBM) project is coordinated by an interdisciplinary team led by Prof. Eva Swinnen and Prof. David Beckwée, in collaboration with Prof. Bart Jansen.

The team will investigate a promising solution combining blood flow restriction (BFR) with an electromyography (EMG)-driven serious game. This multicenter randomized trial will be conducted in collaboration with UZBrussel, UAntwerpen/UZA, and KULeuven.

We are looking for a motivated software / web developer to contribute to the execution of this project. With the Electronics and Informatics Research Group (ETRO) and in particular with the biomedical engineering team, we are dedicated to advancing scientific knowledge and making a significant impact in the field of rehabilitation technology and artificial intelligence and signal processing in support of it.

In the project, you will develop an online web-based dashboard for the patients and therapists to follow up the game-based rehabilitation. The patient will perform gamified rehabilitation exercises on a tablet. The details of each session are uploaded to a centralized database and the therapists and patients can follow their progress online in a dashboard.

Your role

- Propose, develop, and deploy an overall design for a web dashboard for medical data storage and presentation – including frontend, backend, and database.
- Close collaboration with team members working on the serious game to ensure compatibility, e.g. data storage, exchange
- Assist in the integration and testing of the whole system
- Communication with partners from the medical side to ensure the proposed solution reflects their needs, in terms of presentation, accessibility, security etc.

Profile

- University education (Bachelor's / Master's degree)
- You are a skilled web developer with expertise in developing web dashboards.
- You have excellent written and verbal communication skills in English. Knowledge of Dutch is a plus, but not required.
- You can work independently as well as collaboratively in a multidisciplinary team.
- Technical skills
 - o Python / JavaScript / Java (Spring/Hibernate)
 - o Node.js / Express.js / React.js / Angular / Svelte
 - o PostgreSQL / MongoDB
- Additional preferred knowledge/experience (as an advantage): Docker, Git, cloud technologies

Interested? For more information or application, you can contact Prof. Bart Jansen (bart.jansen@vub.be). We expect your application (motivation letter and C.V.) no later than February 20th 2025.

This is a full-time position of 6 months. We offer you quality supervision and work in multi-cultural international team of multi-disciplinary research scientists.

At the VUB, you're guaranteed an open, involved and diverse workplace where you are offered opportunities to (further) build on your career.

As well as this, you will also enjoy various other benefits:

- Extensive homeworking options, a telework allowance of 50 euros per month OR an internet fee of 20 euros per month;

- An open and informal working environment where attention is paid to work-life balance, and exceptional holiday arrangements with 35 days of leave (based on a fulltime contract), closure between Christmas and New Year and 3 extra leave days;
- Cost-free hospitalization insurance;
- Full reimbursement of your home-to-work commute with public transport according to VUB-policy, and/or compensation if you come by bike;
- A wide selection of meals in our campus restaurants at attractive prices;
- Excellent and affordable facilities for sport and exercise, a range of discounts via Benefits@Work (in all kinds of shops, on flights, in petrol stations, amusement parks...) and Ecocheques;
- Nursery near campus, discount on holiday camps;
- The space to form your job content and to continuously learn through our VUB learning platforms and training courses;
- And finally: great colleagues with a healthy drive.



Bart Jansen

Professor

M +32 (0)485 744961

Pleinlaan 2 - 1050 Brussel - www.vub.be