



Discovery Program: Predictive algorithm to automate therapy goals

Description:

Therapy programs that aim at helping patients who suffer from mobility impairments often lack objective measures to assess the patients and to set appropriate goals. Missing objectives as well as missing assessments carried out by the therapists may lead to a lot of variability in the treatments and the output.

The project will require you to develop a predictive algorithm that will output a goal for the therapy. The input to the algorithm would be predefined patient tests as well as training data that will provide the precise parameters that will correlate with the specified output. To carry out this task, you will have access to the Myosuit and the test center at our headquarters where we train with patients that suffer from a wide range of pathologies.

With this project we aim at providing therapists with a tool to objectively assess their patients and set goals.

The project will require you to work on the following topics:

- 10% literature research
- 20% Requirement and specification definition
- 50% Data analysis and machine learning
- 20% Testing the results on patient data

Requirements:

- Enrolled in computer science, or engineering degree
- Knowledge of Python programming languages
- Experience in applied machine learning and statistics.

Would be great if the candidate has:

- Previous experience in biomechanics and digital biomarkers
- Feels comfortable working in very open-ended problems

Other information:

Duration: 6 months

Starting date: February

Affiliated ETHZ Lab: Sensory-Motor Systems lab

Apply:

Send CV, latest transcripts and a motivation letter to discovery@myoswiss.com. State the name of the position in the subject of the email.