Funded PhD position in reinforcement learning for neuro-musculoskeletal models of human movement (Tübingen, Germany)
We are currently seeking a highly motivated
PhD student (f/m/d)

We offer a **funded PhD researcher position for at least 36 months**
The project combines machine learning strategies, biomechanical models, and computational motor control with the aim to reproduce healthy and impaired human movements. Your project will build on recent advances in our groups and in the field, e.g.:

https://www.youtube.com/watch?v=bhc5i4ul-CI
https://arxiv.org/abs/2206.00484

You will become a member of the group of Georg Martius on *Autonomous Learning* at the University of Tübingen (formerly at the Max Planck Institute for Intelligent Systems: https://al.is.mpg.de/). The project will be in close collaboration with the group of Daniel Haeufle (https://www.hih-tuebingen.de/mocom/ and https://www.ziti.uni-heidelberg.de/ziti/de/institut/forschung/ag-hri). The project is embedded in the CyberValley (https://cyber-valley.net/en), Europe's largest AI research consortium. Your thesis will be part of an ongoing collaboration with researchers from the University of Stuttgart and the Max-Planck-Institute for Intelligent Systems. Our joint research environment offers an excellent research infrastructure and outstanding graduate schools fostering the development of your career.

Your contract should start in spring 2024. Salary will be based on previous experience.

Requirements, core skills
The ideal candidate should have
- A background in **computer science and reinforcement learning, biomedical engineering, (bio-)physics, computational neuroscience,** or closely related
- a Masters (or equivalent) degree from a recognised university. Near completion can be considered;
- Prior knowledge in biomechanical modelling, multi body dynamics modelling, dynamical systems, or (rehabilitation)robotics is a plus;
- Prior experience with neuro-muscular or computational motor control is a plus;
- Prior experience with reinforcement learning is a plus;
- Proficient programming experience in Python or similar
- Excellent grades and analytical skills;
- Proficient oral and written English skills;
- Outstanding candidates with different backgrounds are encouraged to apply

The position will remain open until filled. Applications sent before November 15 2023 will be prioritised.

To apply: Please also send your Cover letter and CV including the subject 42128 to:
violaine.le-guily@uni-tuebingen.de

Please also consider applying to the International Max-Planck Research School for Intelligent Systems (IMPRS-IS): https://imprs.is.mpg.de/ (deadline Nov. 15). In the application process, please select as your desired PI's Georg Martius and Daniel Haeufle.

We are looking forward to your application!
Georg Martius and Daniel Häufle