Tutor / Tutorin for "Reinforcement Learning for Optimizations in Biomechanics"

Position: **student assistant (SHK) – Tutor**
Working hours: **4** hours/week
Start - end dates: 2025.**04.15** – 2025.**07.15**

Job description

The **Associate Professorship of Sport Equipment and Sport Materials** is looking for a motivated **student assistant (SHK)** to help us as a **Tutor** for the course **"Reinforcement Learning for Optimizations in Biomechanics"**. The role involves installing software packages on virtual machines (VMs) running on LRZ Compute Cloud, helping students with using the VSCode IDE and git version control, implementing biomechanical models in *MuJoCo* physics simulator and running Reinforcement Learning (RL) algorithms implemented in the *stable-baselines3* library. This is a great opportunity to strengthen your own knowledge while helping others learn cutting-edge AI techniques applied to Biomechanics.

Key responsibilities

✅ Help with **installation and administration** of the software on Linux VMs running on TUM's LRZ.
✅ Conduct **tutoring sessions** and assist students with exercise and project-related challenges.
✅ Assist students with coding exercises in **Python** using **Jupyter notebooks**.
✅ Help students set up and troubleshoot **MuJoCo** models and their simulations.
✅ Provide guidance on **running RL algorithms** implemented in the *stable-baselines3* library.
✅ Assist students in using the **git** version control to keep track of their work.

Requirements

⭐ **Enrolled** as a student at TUM (Bachelor/Master level).
⭐ Experience **working on Linux** (Ubuntu 22.04) and installing software packages.
⭐ Comfortable **working with git** version control**.**
⭐ Comfortable **working on remote VMs** (via VSCode and SSH).
⭐ Experience with **programming in Python**.
⭐ Comfortable with **setting up and using Jupyter notebooks** for interactive computing.
⭐ Fluency in **English**.

Preferred and not required

⭐⭐ Experience with **MuJoCo** for physics-based simulations.
⭐⭐⭐ Familiarity with using the **stable-baselines3** library.

We offer

🎓 **Teaching experience** in an RL course focused on applications.
🚀 Hands-on exposure to **cutting-edge RL applications in biomechanics**.
🤝 Collaboration with a **research-driven and interdisciplinary team**.
🕐 Flexible working hours.

Application process

To apply, please send **now!** (because the hiring process takes 3 – 4 weeks) the following documents in **PDF** format to **gheorghe.lisca@tum.de**:
✅ CV (max. 2 pages)
✅ Transcript of records
For any questions, please contact Gheorghe Lisca at gheorghe.lisca@tum.de.

We look forward to your application! 🎓