

Lehrstuhl für Maschinelles Lernen und Datenanalytik (Department Informatik)

The biomechanical motion analysis and creation (BioMAC) group is looking for a working-student with a bachelor's degree for 9 hrs/week. Initially, the position is for 3 months, with a possible extension of another 3 months. The BioMAC group develops methods for accurate analysis and simulation of human motion, focused on gait. We combine biomechanics, neuromechanics and machine learning to understand human motion and design better wearables, like prosthesis, exoskeletons, and running shoes.

The job entails the installation of a system to measure perturbed gait in a lab that has an instrumented treadmill as well as a motion capture system. The perturbation system has multiple modules consisting of cables and motors that are connected to a person. By applying random forces through this system, perturbations can be created when a person is walking on a treadmill. Furthermore, you will also create and update tutorials on how to use the perturbation system, as well as the treadmill and motion capture system. Experience in MATLAB and/or Python is required, while some experience with or interest in hands-on engineering projects is expected, ideally using e.g. 3D printing as well.

More information about the BioMAC group:

<https://www.mad.tf.fau.de/research/groups/biomechanical-motion-analysis-and-creation/>

More information about the perturbation system: <https://biomechatronics.stanford.edu/bump-em>

To apply, please send your CV, transcript of records from meinCampus, and a cover letter (max 1 page) to Prof. Dr. Anne Koelewijn: anne.koelewijn@fau.de

For questions, you can also contact anne.koelewijn@fau.de

Applications are open until the position is filled. The intended starting date is 01.11.2021 or as soon as possible.

