



FRIEDRICH-ALEXANDER
UNIVERSITÄT
ERLANGEN-NÜRNBERG
TECHNISCHE FAKULTÄT



MACHINE LEARNING
& DATA ANALYTICS

PhD position in Computer Science / Sports Engineering: Sensor Data Fusion & Signal Analysis

The Machine Learning and Data Analytics Lab (MaD Lab) at the Friedrich-Alexander-University Erlangen-Nürnberg (FAU) invites applications for a **PhD position** in Computer Science. The research topic is focused on sensor data fusion and signal analysis for sport specific data and is conducted with a major industry partner.

Background:

The world is getting more and more connected by advances of technology in various fields. The use of those advances drives innovations and is thus changing the way we drive, the way we work, the way we communicate with each other or to be more general – the way we live.

In cooperation with a major industry partner, we will research signal analysis and machine learning algorithms for (sport specific) sensor data fusion applications. You will develop innovative algorithms, prototypically implement them for real-life elite level sports applications and scientifically evaluate the results. For an further inspiration, please see <https://www.fau.de/2018/07/die-fau-in-den-medien/national-geographic-fau-doktorand-stellt-innovation-fuer-tischtennistraining-vor/> and <https://spectrum.ieee.org/the-human-os/biomedical/devices/wearable-device-tricks-tricks-in-freestyle-snowboarding>.

Work Environment

The MaD Lab is part of FAU, which is one of the largest universities in Germany. With its five faculties, FAU offers a scope of subjects ranging from the Humanities to Law and Economics as well as Sciences, Medicine and Engineering. FAU's mission statement "Advance through Networks" reflects the close collaboration between the single disciplines. FAU has been ranked the third year in a row the most innovative University in Germany.

The MaD Lab at FAU researches machine learning algorithms and ubiquitous computing systems. The aim of the MaD Lab is to contribute research that is applicable to real-world settings. Detailed information on ongoing projects is available on our website, via our publications and upon request.

Requirements:

Candidates for this position should have a master or comparable degree in Computer Science or a related discipline (Medical Engineering, Electrical Engineering, ...). Knowledge of one or several of the areas signal processing and analysis, sensor data fusion, pattern recognition, machine learning, computer science in sports, biomedical signals, wearable systems is desired. The ideal candidate shows strong enthusiasm about research and has excellent teamworking abilities. The candidate should also blend expertise in the aforementioned areas with an interest in real-world application.

Program details and contact for application/questions:

The project start date is as soon as possible. Funding is available for at least 36 months, an extension is possible. Prospective applicants should apply with a cover letter and academic CV. Applications will be accepted until the position is filled.

Contact: Prof. B. Eskofier, Ph.D. ([bjoern.eskofier \(a t\) fau.de](mailto:bjoern.eskofier@fau.de))

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