FRIEDRICH-ALEXANDER
UNIVERSITÄT
ERLANGEN-NÜRNBERG

Universität Stuttgart

PATTERN
RECOGNITION
LAB

adidas®

PhD position in Computer Science / Human Computer Interaction in Sports

The Pattern Recognition Lab at the Friedrich-Alexander-University Erlangen-Nürnberg (FAU) invites applications for a PhD position in Computer Science. We are about to start a three-year project on

Novel Human Computer Interaction Concepts for Wearables in Sports & Fitness

in cooperation with the adidas AG and in co-supervision with Prof. A. Schmidt / University Stuttgart.

Research area:
Wearables will be an integral part of future life, and will play an increasingly important role in sports, fitness, and quantified self applications. Human Computer Interaction (HCI) concepts for Wearables in these application areas need to be adapted to specific requirements like interoperability, light-weight design, power-efficient implementation, and seamless integration into clothing or equipment. The PhD project focuses on novel HCI concepts addressing these requirements. The research will include:

- Analysis of HCI requirements in sports and fitness based on current literature
- Design considerations for novel HCI concepts in sports and prototypical implementation
- Planning and execution of research studies
- Scientific evaluation and publication of the results in top HCI conferences and journals
- Limited participation in teaching and writing of project proposals

Work place:
The FAU 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. The FAU's mission statement "Advance through Networks" reflects the close collaboration between the single disciplines.
The Pattern Recognition Lab at the FAU develops machine learning and signal processing algorithms for engineering applications. Its Digital Sports Group (headed by Prof. B. Eskofier) specifically works on motion and biosignal analysis. We focus on mobile data from Wearables for sports and health applications. The project is additionally co-supervised by Prof. A. Schmidt (professor of human-computer interaction at the University of Stuttgart).

Requirements:
Candidates for this position should have a master or comparable degree in Computer Science, Electrical Engineering, or a related discipline. The ideal candidate blends technical expertise in HCI, machine learning, signal processing, sensor data fusion, as well as hardware and software of wearable computing systems, with an interest in sports and fitness as application area. The candidate should also be enthusiastic about working in a team, about supervising bachelor and master students, and about proactively driving research projects in cooperation with industry. Very good programming skills are required. Circuit design and realization experience is a plus.

Program details and contact for application/questions:
The earliest project start date is March 1, 2015. Funding is available for 36 months. Candidates should apply with a cover letter and an academic CV. Applications will be accepted until the position is filled.
Contact: Prof. B. Eskofier, Ph.D. (bjoern.eskofier (a t) fau.de)
Website: www5.cs.fau.de/research/areas/digital-sports