

## PhD Position in Computer Science

The Machine Learning and Data Analytics Lab (MaD Lab) at the Friedrich-Alexander University Erlangen-Nuremberg (FAU) invites applications for a PhD position in Computer Science. We are about to start a three-year project on the

### Development of Intelligent Neural Networks for Handwriting Recognition

#### Background

Entering text on digital devices typically requires a keyboard. Studies showed, however, that creativity and memory retention is increased if handwriting is employed. This project therefore aims to develop a sensor-equipped pen for the digitalization of handwriting. The project is in collaboration with the Stabilo International GmbH that developed and produces the digital pen. This pen is equipped with several sensors including, for example, an inertial sensor. The focus of the PhD position is on the development and evaluation of neural networks or deep learning architectures that (1) recognize the handwriting and (2) reconstruct the pen's path based on the sensor signals.

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 "Knowledge in Motion" reflects the close collaboration between the single disciplines.

The MaD Lab at the FAU develops machine learning algorithms and ubiquitous computing systems. The aim of the MaD Lab is to contribute ML and AI research that is applicable to real-world interaction 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 (Electrical Engineering, Medical Engineering, ...). The ideal candidate blends technical expertise in wearable and ubiquitous computing systems with background knowledge in machine learning and, in particular, neural networks. The candidate should have good communications skills and show enthusiasm about working in an interdisciplinary team consisting of scientists and industry partners.

#### Program Details and Contact for Application/Questions

The project starts in March or April 2019. Funding is available for at least three years, an extension is possible. Prospective applicants should apply with a cover letter and academic CV. Applications will be accepted until the position is filled.

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