



Friedrich-Alexander-Universität
Erlangen-Nürnberg



Ph.D. positions in Applied Machine Learning & AI in Medicine projects

The Machine Learning and Data Analytics Lab (MaD Lab, <https://www.mad.tf.fau.de>) at the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) invites applications for two open PhD positions in the areas of applied machine learning and AI in medicine. The associated research projects are focused on i) data augmentation for machine learning for time series in cooperation with an industry partner (STABILO International GmbH), and ii) medical data science / AI in medicine research in close cooperation with several cooperation partners within the University Hospital Erlangen.

Position information

We are looking for highly motivated PhD (Dr.-Ing.) candidates for these exciting research projects. The projects aim to develop advanced (machine learning) algorithms with concrete applications in industry and medicine. More information on the individual projects is available upon request. You will be responsible for researching novel algorithms, and for implementing and validating them in real-world settings. These interdisciplinary projects will involve close collaboration with industry and medical partners, fostering a dynamic and innovative research environment.

Research environment

The Machine Learning and Data Analytics Lab is part of the new Department Artificial Intelligence in Biomedical Engineering of FAU, one of Germany's largest universities. 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, "Moving Knowledge", reflects the close collaboration between the individual disciplines.

The MaD Lab at FAU researches machine learning algorithms and ubiquitous computing systems. The motivation of the MaD Lab researchers is to improve human well-being by contributing to applications in real-world settings. Detailed information on ongoing projects is available on our website, via our publications, and upon request.

Requirements

The ideal candidates for these positions demonstrate a strong research passion, particularly in addressing industrial / medical research questions. Prospective PhD candidates should hold a master's or equivalent degree in Biomedical Engineering or a related field (e.g., Computer Science, Electrical Engineering) from a prestigious university with an above-average grade. Proficiency in both written and spoken English is essential. Additionally, desirable qualifications include knowledge or experience in one or more of the following areas:

- Machine learning / deep learning / foundation models
- Federated learning
- Time series
- Health / medical data science

Moreover, the candidates should be motivated to work within a fantastic interdisciplinary team and should exhibit exceptional social skills, drive, and dedication.

Program details and contact for application/questions

Positions can start as soon as possible. Funding is available through a **TV-L E13 position (100%) with duration of three years**; extensions are possible. Prospective applicants should apply with a motivation letter (max. 1 page), academic CV, and optional certificates as one document. Applications will be accepted until positions are filled.

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