PhD Student (f/m/x)  
research group “Data science of bioimages

As a modern maximum-care hospital with a capacity of approximately 1,540 beds, the University Hospital of Cologne is dedicated to the practice of innovative academic medical excellence. At the Faculty of Medicine 1,800 scientists are engaged in research, ranging from basic sciences to clinical application, as well as teaching and health care. Together with the University Hospital Cologne the faculty maintains 58 clinics, research institutes and centres. 3,400 students study in this dynamic and innovative environment. The Faculty of Medicine and the University Hospital Cologne are embedded in the scientifically highly active Rhine region. They have strong contacts to and alliances with the surrounding universities and non-university research institutions guaranteeing scientific excellence in research and teaching.

The CMMC invites applications from enthusiastic, motivated individuals for the newly established research group “Data science of bioimages” of Dr. Katarzyna Bozek for a PhD Student (65% TVL–E13) to be employed under a limited–time contract. The third-party-funded position is limited to 3 years according third-party funding (NRW Rückkehrerprogramm, Nachwuchsgruppe) according to the Law (WissZeitVG).

The Center for Molecular Medicine Cologne (CMMC) is a multidisciplinary center at the University of Cologne providing a forum that brings together physician scientists with basic researchers from the Faculty of Medicine and the Faculty of Mathematics and Natural Sciences to perform competitive basic, disease-oriented research. The mission of the CMMC is to advance the understanding of the underlying molecular and cellular mechanisms as a prelude to improving prevention, diagnosis and treatment of many common health problems.

Our group is working on data-intensive problems in biomedicine by combining machine learning, statistical and other computational methods. Image data and deep learning solutions represent an important part of our research projects. We also devise new bioinformatic and analytical solutions for integrative, systems biology analyses involving large-scale sequence and proteome data. Topics include analysis of cancer related data obtained from patient samples and study of mechanisms of ageing in model organisms. All projects involve collaboration with experimental and medical partners located in Cologne and at the Charité hospital Berlin. The successful candidate will be working in an international and interdisciplinary scientific environment in the heart of cosmopolitan, lively, historical city.
Your responsibilities will include:

- Analysis of large-volume and multi-modal biological data
- Implementation of computational pipelines including existing machine learning methods
- Development of new analytical and ML solutions dedicated to resolving specific biomedical problems
- Communication with medical and experimental collaboration partners

Minimum qualifications:

- MSc degree in computer science, physics, bioinformatics, or a related field
- Good knowledge of programming (python, R)
- Experience with computation on cluster architectures
- Experience with machine learning is preferred
- Great communication skills, capacity of working in a team and in an interdisciplinary environment

We offer:

- Opportunity to apply and develop cutting-edge machine learning and computational technologies to resolve timely medical and scientific problems
- Lively, collaborative, and international multi-disciplinary working environment where colloquial and working language is English
- Development and networking through participation in workshop and conferences both ML and biomedical

Your salary will be based on TV-L.

Applications from female candidates are expressly welcome and will be given priority in the event of equal suitability, competence and professional performance.

People with disabilities are welcome to apply and will be treated preferentially in the event of equal suitability and qualification.

Please address e-mail enquiries Dr. Katarzyna Bozek; k.bozek@uni-koeln.de.

For further information, please visit CMMK and research-area to learn more about the group's interests and ongoing research.

Have we awakened your interest? Please submit your application (include CV, cover letter, and contact to 2 references) here online.
We prefer online applications, but you also have the opportunity to apply via regular mail by 15. March 2020 quoting the reference number 00001608 to

Universitätsklinikum Köln AÖR
PA 16
Geschäftsbereich Personal
Job-ID: 00001608
50937 Köln