



LUDWIG-  
MAXIMILIANS-  
UNIVERSITÄT  
MÜNCHEN

MEDIZINISCHE FAKULTÄT  
INSTITUT FÜR MEDIZINISCHE INFORMATIONSVERARBEITUNG,  
BIOMETRIE UND EPIDEMIOLOGIE - IBE  
LEHRSTUHL FÜR BIOMETRIE UND BIOINFORMATIK



The Institute for Medical Information Processing, Biometry, and Epidemiology (IBE) at the Ludwig Maximilian University (LMU) of Munich is seeking a

## Technical Assistant

### Tasks and responsibilities:

The young and passionate SAFICU (Systematic Analysis Federation in the Intensive Care Unit) research group of the Institute for Medical Information Processing, Biometry, and Epidemiology (IBE) at the LMU of Munich is seeking a technical assistant to join our team. Funded by the Federal Ministry of Education and Research (BMBF), this technical assistant position (E11 TV-L - Entgeltgruppe 11, Tarifvertrag für den öffentlichen Dienst der Länder) will start ideally **as soon as possible**. The contract duration is initially for one year, with a possible extension for another four years.

### Requirements:

In this role, you will be taking part in exciting federated-analysis projects. As a developer, you will be contributing to implementing smart-contract technologies for federated analyses in critical care medicine, and in supporting the research group in the development of clinical decision support systems using blockchain-enhanced analysis of intensive care unit (ICU) data. Our goal is to improve health care, patient safety, and support clinicians in their daily work. As part of the research's team, you will help our academics to working on three coherent blocks: 1.) performing Extract-Transform-Load (ETL) processes, 2.) building an infrastructure for federated analyses, and 3.) implementing those with two use cases, including 'optimization of blood transfusion management' and 'mechanical ventilation strategies' in ICU patients. Much of our research uses programming languages like Python, R, and Structured Query Language (SQL).

Applicants must have excellent computer skills, experience in Computer Science, or Computer Engineering, preferably in Biomedical Informatics, and provide advanced programming skills in at least in one of the listed programming languages (Python, R, and/or SQL). They should have the ability to work in a driving research group and a strong interest in interdisciplinary approaches. A medical background knowledge would be an advantage. Extended skill sets (examples listed below) are very welcome and encouraged, but not required:

- Preferred degree concentrations in: Computer Science, Computer or Electrical Engineering, Statistics, Mathematics, Artificial Intelligence, Machine Learning, Data Mining, Database Management, Federated Analysis or related scientific fields
- Programming & Web Development Languages: Python, R, SQL, Java, others
- Familiarity with Linux programming
- Strong analytic, inferencing, critical thinking, and creative problem-solving skills
- Self-starter with the ability to work both independently and within a team

- Experience with Deep Learning Frameworks such as Keras, Tensorflow, PyTorch, etc., and the ability to apply these frameworks to real world problems in the 'time -series' domain

**Benefits:**

If you would like to become an integral part of a young, dynamic and friendly team with limitless potential, we would love to meet you. Let us know about your development goals and we will help you to get training and experience.

Munich ranks as a global center of science, technology, art, and culture. Surrounded by nature and ice-age glaciers grounded landscape, Bavaria's capital city enjoys a very high standard and quality of living. Our working space location is easily reached by public transportation or by car. Sportive engaged team members adore the bike commute from the city center to Großhadern.

This technical assistant position will be ideally a full-time (100%) job. Home office is possible.

As the candidate will be an employee of the Free State of Bavaria, Germany, and covered by the mandatory social security in Germany, i.e. health insurance, unemployment insurance, retirement insurance, and superannuation scheme of German retirement fund for federal and state employees. Further information will be provided upon request.

All qualified applicants are encouraged to apply and will receive consideration for employment without regard to race, ethnicity, religion, color, national origin, age, gender, sex, sexual orientation, disability status, or any other characteristic protected by applicable law.

**Contact:**

Your application should include a curriculum vitae, a letter of motivation, and if applicable, a sample of your academic writings. Please submit your documentation electronically in a single PDF file (max. 3 MB) to the email address given below at your earliest convenience.

Institut für Medizinische Informationsverarbeitung, Biometrie, und Epidemiologie (IBE)

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