

**Are you looking for a new professional challenge?
Then this is the place to be!
Become part of our international team!**



January 20, 2022

The Zuse Institute Berlin (ZIB) is a non-university research institute under public law of the state of Berlin. We conduct research and development in applied mathematics and computer science as well as the analysis and processing of complex data in conjunction with high-performance computing.

For the *Visual Data Analysis* research group, part of the division of *Mathematics of Complex Systems*, we are looking for a candidate to start as soon as possible. This vacancy offered is a fixed-term contract for four years.

**Research Position (m/f/d)
Reference Code: WA 03/22
Pay Grade: E14 TV-L Berlin (100%)**

Job description – project goals

The project is part of the DFG-funded research group *RobustCircuit*, which is carried out in close cooperation with several neurobiological research groups at the Freie Universität Berlin, the Johannes-Gutenberg-Universität Mainz, the Humboldt-Universität zu Berlin, as well as a mathematical research group at the Robert Koch Institute. The goal of *RobustCircuit* is to investigate the role of imprecision in the assembly of neural circuits and how it affects the structural and functional robustness of these circuits. To investigate this, a number of different imaging techniques (e.g., multiphoton microscopy) will be used to generate time-dependent two- and three-dimensional image data of neurons and subcellular structures. Your task will be to develop and adapt image analysis methods for these data. Automated tracking of (sub-)structures will play a particularly important role.

Ideally, you fulfill the following requirements

- PhD in computer science, mathematics or a related subject with a focus on image analysis with very good degree
- good knowledge in visualization and visual data analysis
- experience in software development with C++ and Python
- high interest in neurobiological research
- very good communication and teamwork skills, both internally and across disciplines
- high degree of self-reliance and commitment
- very good command of written and spoken English

It would be favorable if, additionally,

- you are interested and have prior knowledge in image registration;
- you are interested in methods of machine learning/artificial intelligence;
- you have experience in research data management.

We are offering a friendly working atmosphere with flexible work and meeting times, excellent equipment, a challenging professional environment as well as

- a multifaceted, future-oriented and responsible field of activity,
- comprehensive training in a competent and cooperative team,
- the promotion of an autonomous way of working,
- opportunities and support in professional development,
- the opportunity to write a doctoral thesis,
- an additional pension scheme (VBL),
- 30 days annual leave, flexible working hours (flexitime),
- a salary in accordance with TV-L (Collective Agreement for the Public Service of the Federal States), taking into account the relevant professional experience, as well as an end-of-year bonus,
- discounted BVG (public transport) ticket as part of the capital city allowance,
- and the use of canteens and sports programs of the Free University Berlin (FUB) at reduced rates.

Female applicants are highly encouraged to apply. Since women are underrepresented in information technology, the ZIB is trying to increase the proportion of women in this research area.

Applicants with disabilities will be given preference if equally qualified.

Please send your application, quoting the reference code **WA 03/22**, including a cover letter containing a statement of your research interests, a CV with a list of publications, academic transcripts, and contact details of two references, by **March 11, 2022** (date of receipt) in pdf-format to: jobs@zib.de

Our private policy statement regarding application data is available at www.zib.de/impressum.

For further information about the position, please refer to our website www.zib.de or contact Dr. Daniel Baum (baum@zib.de).

For further job offers please visit our website at www.zib.de/jobads.