

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



01.10.2020

**ZIB**

The Zuse Institute Berlin (ZIB) is a non-university research institute under public law of the state of Berlin. Within the research group "Visual Data Analysis", we are offering at the earliest possible date until March 31<sup>st</sup> 2025

**a research position (m/f/d)  
(Doctoral student) reference code: WA 60/20  
pay grade E13 TV-L Berlin (100%)**

### **Job description**

Within the BMBF-funded project "MODAL MedLab" you will develop and implement methods for the automated segmentation of three-dimensional (3D) image data of cellular and subcellular structures acquired by cryo-electron tomography. Like no other imaging technique, cryo-electron tomography allows the recording and analysis of structures of a living cell down to individual macromolecules. For the segmentation of these 3D data, which still represent a great challenge despite enormous progress in imaging, artificial neural networks shall be applied, supported by the development of visual interactive tools and methods of computer graphics. The research and development work will be carried out in close cooperation with well-known and in their field leading partners from industry and research.

### **Your profile**

- Very good Master's degree (or equivalent) in computer science, physics, mathematics or related disciplines,
- Advanced knowledge and experience in image processing,
- Experience with deep neural networks, visual data analysis, and computer graphics,
- Good programming skills in C++, Python or similar language,
- Creativity and a high degree of commitment to problem solving,
- Good command of written and spoken English.

### **Additionally, you are**

- a team player who is interested in interdisciplinary collaborations,
- interested in biological problems.

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

### **as well as**

- a comprehensive training in a competent and cooperative team,
- additional pension scheme (VBL),
- 30 days annual leave, flexible working hours (flexitime),

- payment in accordance with TV-L (Collective Agreement for the Public Service of the federal states), taking into account the relevant professional experience and annual special payment,
- and the discounted use of canteens and the sports program of Freie Universität Berlin.

Due to our involvement in major regional cooperative projects, such as the Einstein Center for Mathematics (ECMath), the DFG Cluster of Excellence MATH+, the Berlin Mathematical School (BMS) or the Berlin Institute for the Foundations of Learning and Data (BIFOLD), we have close ties to universities and research institutes in the region.

Although the position is advertised full-time, a part-time agreement is also possible.

The candidature of women is encouraged. Since women are underrepresented in information technology, ZIB is trying to increase the proportion of women in this research area.

Persons with disabilities will be given preference when equally qualified.

Please send your application, quoting the reference code [WA 60/20](#), including a cover letter containing a statement of your research interests, a CV in tabular form with list of publications, academic transcripts, and contact details of two references, by **November 4th, 2020** (date of receipt) to

**Zuse Institute Berlin (ZIB)**  
**- Administration -**  
**Takustr. 7**  
**14195 Berlin**

or electronically as pdf-form to: [jobs@zib.de](mailto:jobs@zib.de).

Our private policy statement regarding application data is available at [www.zib.de/impressum](http://www.zib.de/impressum).

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

For further job offers please visit our website at [www.zib.de/jobads](http://www.zib.de/jobads).