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

ZIB
ZUSE INSTITUTE BERLIN

2nd May 2024

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 *Explainable AI for Biology* research group, which is part of the department *Visual and data-centric computing*, we offer a fixed-term contract at the next possible date for a period of 14 month for a

Scientific Employee (f/m/d)
Reference Code IWA 19/24
Pay Grade TV-L E13 (100 %).

A prevalent misperception is that DNNs are unsuitable for small data sets. Our goal in this study is to look into DNN bottlenecks in small data settings and further suggest ways to alleviate them. Our findings will be included into the industrial nano optics tools that is being developed by JCMWave.

Job description

The goal of the project is to:

- Investigate the challenges of overfitting in DNNs,
- Investigate the loss landscape for small data problems
- Develop algorithms to traverse the ridges of the loss landscape

Your Profile

- MSc in Mathematics or informatics
- Research experience in parameter inference
- Good programming skills (Python or similar)
- Experience in research and working in interdisciplinary groups
- Scientific articles written as first author is a must have
- Good command of spoken and written English

Additionally you are interested in application as well as in computational mathematics.

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

as well as

• comprehensive training in a competent and cooperative team,
• an additional pension scheme (VBL),
• 30 days annual leave, additionally free from work on December 24th and 31st,
• compatibility of work and family through flexible working hours, e.g. (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,
• an allowance of up to €150 per month, alternatively a discounted BVG (public transport) ticket + difference amount,
• an end-of-year bonus
• and the use of canteens and sports programs of the Freie Universität Berlin (FUB) at reduced rates.

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

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 **IWA 19/24**, including a cover letter containing a statement of your research interests, your CV and the standard supporting documents as **one PDF file** by 8th May 2024 (date of receipt) to: jobs@zib.de.

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

For further information on the area of responsibility, please contact Dr. Vikram Sunkara (sunkara@zib.de).

For further job offers please visit our website at https://www.zib.de/jobadvertisement.