Technische Universität Berlin

Technische Universität Berlin offers an open position:

Research Assistant - salary grade E13 TV-L Berliner Hochschulen
Part-time employment may be possible; under the reserve that funds are granted

Faculty II - Institute of Mathematics / Mathematical Modeling of Industrial Life Cycles
Reference number: II-589/24 (starting at 01/01/25 / limited until 31/12/2027 / closing date for applications 08/11/24)

Working field:

The post holder will conduct independent research into generative learning methods with application in the field of generative design of hydrogen burners for gas turbines.
Numerical experiments with deep learning frameworks, such as PyTorch or Tensorflow, for inverse design using invertible neural networks will be carried out and the simulation results will be evaluated for physical and statistical suitability. The position holder will write scientific papers on the topic of the "Turbo Transition" project and participate in the activities of the Turbo consortium and the research network "Effiziente Energieumwandlung" as part of the project. The candidate will also maintain the exchange with the industrial partner Siemens Energy.
The research assistant supports teaching with 1 semester hour per week.

Requirements:

- successfully completed academic university degree (Master, Diploma or equivalent) in Mathematics
- programming experience, preferably in Python
- experience in the application of deep learning, especially generative learning
- programming experience with deep learning frameworks such as PyTorch or TensorFlow
- good knowledge of German and/or English required; willingness to acquire the respective missing language skills

Desirable:

- ability to work in a team and good communication skills
- knowledge of the theory of machine learning
- knowledge of the theory of generative learning
- knowledge of the application of partial differential equations

For further information about the position, please contact Prof. Dr. Gottschalk (gottschalk@math.tu-berlin.de).

Please send your application with the **reference number** and the usual documents (combined in a single pdf file, max. 5 MB) **by email to Prof. Dr. Gottschalk (gottschalk@math.tu-berlin.de)**.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guaranty for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage:
https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/ .

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

Technische Universität Berlin - Die Präsidentin - Fakultät II, Institut für Mathematik, FG Mathematische Modellierung von industriellen Lebenszyklen, Prof. Dr. Gottschalk, Sekr. MA 5-4, Str. des 17. Juni 136, 10623 Berlin

The vacancy is also available on the internet at
https://www.personalabteilung.tu-berlin.de/menue/jobs/

Zertifikat seit 2008
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