

The fulltime-position of a

Research Assistant

is available at the Database System Group in the **Department Mathematics and Computer Science**. It is to be filled from April 1st, 2021 for 3 years, if no qualification periods are to be taken into account. Classification is in **pay grade 13** of the Hesse collective agreement.

The research is conducted in the project Energy-Efficient Event Processing on Modern Hardware, which is a subproject of the priority program Scalable Data Management on Future Hardware <https://www.dfg-spp2037.de/> funded by DFG (Deutsche Forschungsgemeinschaft). This includes the enhancement of the time series database system ChronicleDB developed at the database research group. In order to improve energy efficiency of ChronicleDB, the research includes the study and development of metrics for energy efficiency as well as strategies for analytical query processing that utilize novel hardware components, such as iGPUs and Peer-To-Peer Direct Memory Access (P2PDMA). Scientific findings are evaluated using spatiotemporal use cases, such as (flight) traffic analysis. Within the scope of the assigned tasks, there is the opportunity for independent scientific work to obtain a degree equivalent to a PhD.

Within the scope of the assigned tasks, the opportunity for independent scientific work is offered, which serves the own scientific qualification. The time limit is based on Section 2 Paragraph 1 Clause 1 WissZeitVG.

We are seeking for a highly motivated candidate with a degree in computer science (diploma, master's degree or equivalent) and good background in the design and implementation of database and event systems. Very good programming skills in the area of hardware-related system programming are expected. A background in the area of processing large spatio-temporal databases and GPU programming is advantageous. The willingness to gain one's own scientific qualification is expected.

Philipps-Universität Marburg supports young scientists in their career development, e.g. through positions offered by the Marburg Research Academy (MARA), the International Office and places for higher education pedagogy and personnel development.

We promote opportunities for women, expressly requesting applications from women. In areas where women are underrepresented, we will favor female applicants if their application carries equal merit compared to the applications of their male peers. Our university furthermore aims to be family-friendly, which means we welcome applicants with children. Filling this position on a part-time basis (see § 9 (2) sentence 1 of the Hessian Equal Rights Act -(HGIG)) or reduced working hours are possible in principle. Please submit only copies of your documents, as they cannot be returned after the selection process. Application and processing costs will not be refunded.

All application documents must be sent to the Department of Mathematics and Computer Science, Prof. Bernhard Seeger only in PDF to seeger@informatik.uni-marburg.de before March 5th, 2021, citing reference number fb12-0002-wmz-2021.