

The German Institute for International Educational Research (DIPF, [www.dipf.de](http://www.dipf.de)) is a national centre for educational research and educational information; it is jointly funded by the federal government and the federal states. DIPF is a member of the Leibniz Association operating from locations in Frankfurt am Main and Berlin, with around 300 employees.

Become part of the research and service structure for “Technology-Based Assessment (TBA)”. The TBA centre is an innovator in national and international research and application projects and a key player in digital assessment and education.

The TBA centre develops solutions to administer technology-based assessments (e.g. tests, questionnaires) by means of heterogeneous infrastructures and assessment methods (e.g. online, offline, app-based, with or without test administrators, etc.). Additionally, the centre develops delivery systems incl. mechanisms for the results feedback and deployment. For further developing our HTML5-based assessment software that supports various delivery architectures the TBA centre is seeking to employ a

### **Scientific Software Engineer**

**(full time, limited until 31.12.2019, salary based on EG 13 TV-H\*)**

for the location in Frankfurt am Main.

#### **Your tasks:**

- Research and development of architectures and data models to integrate assessment components into delivery architectures and ICT infrastructures
- Design based research to integrate assessment components into existing deliveries based on existing assessment software or ICT infrastructure as well as on national and international projects
- Independent prototyping, planning, implementation and testing (incl. writing documentation) of a modern delivery system for HTML5-based assessment components into heterogeneous infrastructures
- Identification of further development needs of current learning technology standards (e.g. LTI, QTI, SCORM, xAPI) with regard to the integration of assessment components including their underlying data models
- Scientific publishing on the activities described above is desired and is supported

#### **Requirements:**

- An excellent university degree in Computer Science (Master/diploma) or related field
- Sound technical knowledge and relevant experience (at least 2 years) in the following technical areas:
  - WWW technologies (and protocols)
  - Data representation languages (at least JSON, ideally JSON schema and XML schema)
  - Advanced web interoperability standards
  - Software development for mobile devices
  - A programming language for data manipulation (such as: R, Python)  
Knowledge on programming languages such as Java or C# is a plus.
- Knowledge of relevant JavaScript libraries is desirable (e.g., ReactJS)
- Analytical skills, structured and independent working as well as commitment, high motivation and ability to work under pressure
- Good knowledge of English (written and spoken)



# DIPF

Bildungsforschung  
und Bildungsinformation

- Ability for interdisciplinary and international collaboration, team communication and willingness to travel

We offer a demanding and challenging environment, a modern workplace, good conditions for balancing work and family life (e.g. flexible working-hours and home office options), a pleasant work atmosphere and development perspectives (training opportunities). Women are especially encouraged to apply. Applicants will, in principle, be able to work part-time provided that job-related requirements are appropriately considered. Equally qualified persons with disabilities will be favoured.

Please submit your application and standard documents – preferably in electronic format in a single pdf file - quoting the reference number **IZB 2018-11**. The closing date is **25.06.2018**. Applications should be addressed to Dr. Paul Libbrecht, [bewerbung-izb@dipf.de](mailto:bewerbung-izb@dipf.de), PO Box 900270, 60442 Frankfurt am Main. You will find general information on the website of the TBA Centre (<http://tba.dipf.de/>). Any further enquiry should be addressed to Paul Libbrecht (069-24708-811), [Paul.Libbrecht@dipf.de](mailto:Paul.Libbrecht@dipf.de).

\* Labour agreement for public service in the state of Hesse

