Research Assistant (Full Position, TV-L) (f/d/m)

in Dashboard Development and Data Analysis for Major Depression Research

The Hannover Medical School (MHH), with about 10.000 employees the largest public employer of Lower Saxony, is a university institution for research and teaching in the human and dental medicine and a university hospital of supra-maximum medical care. Research, teaching, medical care and administration work hand in hand in the integration model at the MHH-campus.

The Peter L. Reichertz Institute for Medical Informatics (PLRI) of TU Braunschweig and Hannover Medical School offers a position as Research Assistant (Full Position, TV-L) (f/d/m) in dashboard development and data analysis for depression research to be filled at the earliest possible date. PLRI, one of the largest university-based centers for medical informatics in Germany, is a joint institute of TU Braunschweig and Hannover Medical School. As an academic institution belonging to two leading universities, comprising an institute of technology and a medical school, located in one of Europe's most research-intensive regions, PLRI offers excellent research opportunities. We collaborate in interdisciplinary projects with health care centers, research institutes, enterprises and public organizations in order to shape the future of healthcare and medicine. Our activities ranges from the local level as with the institutions in Braunschweig and Hannover, through regional, national and global corporations.

Your Challenges and Tasks:

The offered full-time position is part of the inter-disciplinary, multi-site, third-party research project “P4D - Personalized, Predictive, Precise & Preventive Medicine for Major Depression”. P4D is the largest German study to improve depression treatment and is funded by the BMBF – Bundesministerium für Bildung und Forschung (https://www.mhh.de/en/presse/mhh-insight/startseite-news-detailed-view/fighting-depression-with-personalised-medicine). Major Depressive Disorder (MDD) represents a debilitating health concern, being one of the most prevalent psychiatric disorders in Europe and the United States. P4D aims at improving the prediction of MDD treatment outcome, further stratifying MDD subtypes, and developing clinical decision aids.

The successful applicant is going to work in a P4D subproject that will establish a system for the secure storage, processing, management, and transport of complex multi-modal medical and biological data, e.g., electronic health records, medical imaging, laboratory, activity, polysomnography, EEG, questionnaire and omics data, to facilitate the development of precision medicine approaches for MDD treatment. The system will serve as a digital data platform, providing data and processing interfaces to other P4D subprojects. The main task of the applicant is the development of a visual dashboard for the platform. At any time of the project duration, the dashboard shall provide a concise overview of the data that has so far been collected from all participating clinical sites. It shall convey basic data characteristics, data quality criteria, allow for a probing of the data, and facilitate a visually supported statistical analysis. The dashboard shall assist in monitoring the data collection and if necessary, trigger early intervention in case of data quality flaws or biases. This very attractive opportunity of accompanying the data acquisition and collection process is in strong contrast to other projects where data analysis is mostly done retrospectively making data quality issues much harder to resolve. The dashboard shall exist beyond the project and allow external researchers to gain a comprehensive overview of the P4D data.

The successful applicant will be situated at MHH campus and work in close cooperation with computer scientists from LUH, physicians from several clinical sites, multiple other disciplines, industry, and the data integration center of the MHH. The successful applicant is expected to develop innovative novel approaches, publish them in high-quality scientific publications at renowned conferences and journals, and assist in the acquisition of follow-up third party funding as well as in administrative tasks of the institute.

Our requirements:

We are seeking outstanding candidates that have:

- obtained a Master's degree in the area of computer sciences, data science, user interface design, information systems, medical informatics, bioinformatics, business informatics, mathematics, or a comparable course of study,
- experience in and a strong passion for data visualization and analysis,
- knowledge of user interface design,
- good programming (Python, R, etc.) and software engineering skills in at least one of the following fields:
    - management of medical and/or biological (research) data
    - analysis of medical and/or biological (research) data
    - visualization of medical and/or biological (research) data,
- willingness to work closely with an interdisciplinary project team,
- good oral and writing skills in English and/or German, and
- self-initiative and result-oriented working style.

We offer:

- a full-time position (38.5 working hours per week) with one of the largest public employers in Lower Saxony, initially limited until August 31, 2025,
- the possibility of obtaining a PhD,
- working in a motivated, team-oriented and international research team,
- a salary according to TV-L with the benefits of the public service (e.g., VBL),
- individual training and further education opportunities,
- 2 days of home office per week,
- a comprehensive company health management, and
- discount for employees (e.g. for numerous online shops).

International applicants will need to complete a visa process before hiring can take place. The position is based at PLRI Campus Hannover and part of *the PLRI research focus Medical Information Systems (https://www.plri.de/)*.

You have any questions beforehand?

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Apply now
Apply until: April, 19th 2023

Apply here:
https://mhh.hr4you.org/application/applicantRegisterCvAnalyzerGenerator/upload/1596?page_lang=en