



We are looking to support our rapidly growing team as soon as possible:

Scientific Data Platform Engineer (f/m/x)

Institute for Biomedical Informatics - BI-K



TV-L: 38,5 h/week (100%)



limited for 24 months
according to WissZeitVG
Third-party funded project



Your salary will be based on
TV-L

Your tasks

- Contribute across the full stack – from data ingestion and backend services to analytics integration and user-facing dashboards
- Design, implement, and maintain a clinical data platform that integrates multimodal data (EHRs, lab, imaging, genomics) into a single interoperable environment
- Build ETL pipelines, APIs, and microservices that enable seamless and secure data exchange between clinical and research systems
- Develop and deploy machine learning and AI-driven tools to support clinical decision-making, anomaly detection, and workflow optimization
- Translate cutting-edge AI & analytics innovations into usable prototypes for real-world clinical settings – ensuring usability, robustness, and compliance
- Collaborate with clinicians, data scientists, and engineers to validate new data-driven solutions in practice (e.g., predictive models, visual analytics, generative AI for patient summaries)
- Contribute to scientific publications, open-source components, and conference presentations

Your profile

- **Education:**
Master's degree (or equivalent) in Biomedical Informatics, Data Science, Computer Science, or

Your future with us

We are one of the leading university hospitals in Germany and network research, teaching and health care at the highest level. That's why many things are a lot bigger for us: the spectrum of exciting development opportunities. The limitless openness with which specialists from all over the world work together here. Or our commitment as an employer to support all employees as best we can in reconciling their job with their goals and life situations.

This is the University Hospital of Cologne: Everything but ordinary.

Your future in detail

This position is part of the DICE-CD project (Data Innovations in Collaborative Ecosystems for Clinical Domains) – a nationally funded initiative under the BMFTR program DigiNutzenDat. The project aims to develop a modular, interoperable data ecosystem for healthcare that enables end-to-end integration of clinical data and supports advanced analytics and AI applications in real-world care.

DICE-CD brings together a unique consortium of leading partners:

University Hospital Cologne (BI-K, MeDIC), Charité Berlin, national research institutes, technology providers, and industry start-ups. The collaboration

related field

Technical skills:

- Proven experience with data engineering and backend development (Databricks, Spark, Azure, Kubernetes, SQL/NoSQL)
- Proficiency in Python (plus R, JavaScript/TypeScript, or Java is a plus)
- Hands-on experience with machine learning, AI, or analytics frameworks (e.g., scikit-learn, PyTorch, TensorFlow)
- Interest in developing front-end prototypes and dashboards (e.g., React, Plotly, Streamlit) to make data insights accessible for clinicians
- Research skills: Strong analytical mindset, familiarity with FAIR principles, and enthusiasm for publishing and presenting results
- Communication skills: Ability to work across disciplines with clinicians, researchers, and IT experts

ensures direct clinical validation (e.g., in rare disease pathways such as ADPKD) and creates a reference architecture that can be scaled across domains. By joining, you will contribute to a project with high societal impact – shaping the digital transformation of healthcare in Germany and beyond.

Our offer

- A unique full-stack role: work from data pipelines to AI deployment and visualization – no silos between engineering and data science
- Opportunity to bring cutting-edge AI and analytics into clinical workflows, directly impacting healthcare delivery.
- Excellent technical infrastructure, access to real-world clinical data, and collaboration with Europe's leading clinicians and researchers
- Support for PhD studies, publications, and international conference participation
- A diverse, family-friendly, and modern working environment with flexible hours and home office options

Applications from female candidates are expressly welcome and will be given priority in the event of equal suitability, competence and professional performance. People with disabilities are welcome to apply and will be treated preferentially in the event of equal suitability and qualification. The position is suitable for staffing with part-time employees.

Contact

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[Uniklinik Köln Karriere](#)

Application deadline: 12.04.2026

Job-ID: c5x77lm7

[apply now](#)

We look forward to receiving your application and getting to know you!