Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

RESEARCH ASSOCIATE FOR THE PROJECT “CQ4CD: CONTINUOUS QUALITY CONTROL FOR CONTINUOUS DELIVERY ARCHITECTURES – SYSTEMATIC ENGINEERING OF PERFORMANCE, RELIABILITY, AND RESILIENCE” § 28 SUBSECTION 3 HMBHG

Institution: Faculty of Mathematics, Informatics and Natural Sciences, Department of Informatics, Distributed Operating Systems Section
Salary level: EGR. 13 TV-L
Start date: as soon as possible, fixed for a period of three years (This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act [Wissenschaftszeitvertragsgesetz, WissZeitVG]).
Application deadline: 2025-04-30
Scope of work: full-time position suitable for part-time

Your responsibilities

Duties include academic services in the project named above. Research associates may also pursue independent research and further academic qualifications.

The position is part of the joint project CQ4CD (Continuous Quality Control for Continuous Delivery Architectures) between the University of Hamburg (UHH) and the University of Vienna (UNIVIE). The position is based entirely in Hamburg, and interaction with project partners is encouraged. The aim of the project is to develop and analyze architectures for Continuous Delivery (CD), with a particular focus on aspects of performance, reliability, and resilience.

The tasks will concentrate on analyzing CI/CD pipeline architectures to identify common patterns and anti-patterns that influence performance, reliability, and resilience. There is a need to document existing architectures and established practices that can contribute to improving these pipeline qualities. Special emphasis will be placed on developing models for assessing the performance and reliability of CD architectures, taking into account the specific requirements and challenges of modern software projects. Additionally, automated tools will be implemented to help identify potential performance bottlenecks or design flaws in the pipelines and their architectures at an early stage.

Another important aspect of the work involves developing strategies for continuous measurement and adjustment of CI/CD pipelines. The focus will be on analyzing operational metrics to make targeted optimizations. Practical tests and benchmarking through empirical studies will assist in verifying and further refining the developed models and optimization approaches.

Finally, the job description includes the documentation of results. These research findings will be recorded in scientific publications and presented at relevant conferences and journals to make the advances in the development of robust CI/CD architectures accessible to a wider audience and to promote knowledge exchange within the academic community.

Your profile

A university degree in a relevant field.

To fulfil the described tasks, a university degree (MSc or equivalent) in computer science and excellent skills in the areas of software development and distributed systems are required. In-depth conceptual knowledge as well as practical experience in the field is expected. The ability to work in a team, independently and very good written and spoken English skills are required. Knowledge of how to work in and lead research projects and groups is an advantage. We expect enthusiasm for high-quality research, openness to working in interdisciplinary projects and willingness to cooperate nationally and internationally with partners in science and practice.

We offer


Reliable remuneration based on wage agreements


Continuing education opportunities


University pensions


Attractive location


Flexible working hours


Work-life balance opportunities


Health management, EGYM Wellpass


Educational leave


30 days of vacation per annum

Universität Hamburg—University of Excellence is one of the strongest research educational institutions in Germany. Our work in research, teaching, educational and knowledge exchange activities is fostering the next generation of responsible global citizens ready to tackle the global challenges facing us. Our guiding principle “Innovating and Cooperating for a Sustainable Future in a digital age” drives collaboration with academic and nonacademic partner institutions in the Hamburg Metropolitan Region and around the world. We would like to invite you to be part of our community to work with us in creating sustainable and digital change for a dynamic and pluralist society.

The Free and Hanseatic City of Hamburg promotes equal opportunity. As women are currently underrepresented in this job category at the University of Hamburg according to the evaluation conducted under the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HambGleiG), we encourage women to apply for this position. Equally qualified and suitable female applicants will receive preference.

Severely disabled and disabled applicants with the same status will receive preference over equally qualified non-disabled applicants.

Instructions for applying

Contact

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Location

Vogt-Kölln-Straße 30
22527 Hamburg
Zu Google Maps

Reference number

106

Application deadline

2025-04-30

Use only the online application form to submit your application with the following documents:

- cover letter
- CV
- copies of degree certificate(s)

If you experience technical problems, send an email to bewerbungen@uni-hamburg.de.
More information on data protection in selection procedures.