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Virtual Reality &
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Call for Initiative Applications as a Postdoctoral Researcher in the areas of Scientific Visualization and Visual Analytics

Our profile

As part of the Network for National High Performance Computing (NHR), RWTH Aachen University and TU Darmstadt combine their strengths in High Performance Computing applications, algorithms and methods. As a joint NHR Center for Computational Engineering Sciences (NHR4CES), the two sites provide targeted support for engineering applications, especially with regard to complex flow phenomena, energy conversion, materials design, and engineering-oriented physics, chemistry, and life sciences.

In this context, Scientific Visualization and Visual Analytics play a central role. Hence, the Cross-Sectional Group (CSG) Visualization has been established as a structure in NHR4CES that specifically supports the application areas defined there, by contributing leading-edge methodological research and service to the visual analysis of complex experimental and simulation data, by selecting and further developing suitable tools, and thus by advancing visualization within NHR4CES. The overall scientific roadmap of the CSG focusses on the interplay between visualization and high-performance computing in engineering science and data science.

The CSG's work is embedded in the Virtual Reality & Immersive Visualization Group of the Visual Computing Institute at the University's Computer Science Department, and in the Computational Science & Engineering division at the IT Center, both led by Professor Torsten W. Kuhlen.

Our offer

If you have a PhD in Scientific Visualization or Visual Analytics, and are aiming for an academic or industrial career in this field, it might be worth talking to us. In fact, we are regularly looking for postdoctoral researchers, who have already gained first scientific achievements, proven by a track record of publications in renowned journals like, e.g., TVCG and/or internationally recognized conferences like IEEE Vis or EuroVis.

In contrast to most other job offers, we are able to offer a full-time (E14) five years perspective, in which you can advance your qualifications in Visualization Science, e.g., towards a professorship. On top of that, working with us in the NHR4CES gives you a unique opportunity to directly access complex, real-world data and leading-edge research questions from fluid mechanics, material science and chemistry. In fluid dynamics, for instance, you would develop cutting-edge visualization solutions

for blood flow and hemolysis in stent modeling, or for thermo-diffusive instabilities in combustion processes of hydrogen.

In the CSG Visualization, you will take a central role in the further development of the group. Take the chance to gain experiences in building and guiding a team that performs basic and application-oriented research, acquires research funding, and develops visualization solutions for complex real-world problems.

In fact, in NHR4CES it is our common goal to make visualization more interactive, better scalable and better applicable. This involves using HPC infrastructure available at the RWTH IT Center. So if are enthusiastic about conducting application-oriented, interdisciplinary visualization research and providing the work of your team to our NHR4CES partners from engineering and data science, do not hesitate to make informal contact by sending an email to Prof. Dr. Torsten W. Kuhlen, kuhlen@vr.rwth-aachen.de.