



## HiWi Position

### UI and User Experience Improvements of VR Molecular Builder Application



#### Description

A virtual reality (VR) environment offers a novel and easy way to explore and navigate molecular data. Real 3D interactions like grabbing, pulling or rotating require a steep learning process using traditional mouse and keyboard input devices. VR controllers make this process a lot more intuitive, while simultaneously propose different challenges.

The tasks for this HiWi position is to improve on the current user experience in the already developed molecular builder application. Other tasks like implementation of new interaction concepts or performance improvements of the application are possible options for this position.

#### Integration

This position is part of the Cluster of Excellence "Data-Integrated Simulation Science (SimTech)" project network PN7-8, which is a collaboration between the Visualization Research Center (VISUS) and the Institute for Theoretical Chemistry (ITheoC).

#### Requirements

- Student in computer science, engineering or natural sciences
- Advanced experience in a VR/AR development environment
- General interest for natural sciences
- (optional) Experience in neural networks, numerical analysis or distributed computing
- (recommended) "Virtual and Augmented Reality" lecture

#### Extent

With or without bachelor degree for 20 to 30 hours per month and at least 3 months. The payment depends on your academic degree.

#### Application

Please send a short motivation and CV including details of your studies (e.g. field of study, graduations, current semester) as PDF via mail.

#### Contacts

Advisor: Tobias Rau ([tobias.rau@visus.uni-stuttgart.de](mailto:tobias.rau@visus.uni-stuttgart.de))

Collaborator and advisor: Prof. Dr. Andreas Köhn ([koehn@theochem.uni-stuttgart.de](mailto:koehn@theochem.uni-stuttgart.de))