HafenCity Universität Hamburg - Universität für Baukunst und Metropolenentwicklung (HCU) is focused on the built environment. Education and research at the HCU Hamburg are aimed at contemplating and concretising what the future of metropolitan areas could and should look like. Coping with this future implies a systematic interdisciplinary as well as a transdisciplinary approach. For this reason, the HCU follows an integrated approach that encompasses all fields of study in both research and teaching.

At the HafenCity University Hamburg, the following position is expected to be available immediately at the Digital City Science Professorship, Prof. Dr.-Ing. Jörg Rainer Noennig:

**Research Associate: Developer for CityScopes Grasbrook**
(Salary group 13 TV-L)

with 50% (19.5 hours) of the regular weekly working hours (39 hours). The position is limited until December 31st 2021.

Digital City Science @ HCU explores the complexity of urban systems with state-of-the-art digital technologies and applies them in the national and international context. The interdisciplinary team develops data-based approaches in order to support the analysis and planning of built urban environments. It brings together expertise from architecture, urban design, spatial planning and geoinformation science, software and media technology. With an extensive network of partners, it creates innovative tools that enable fundamental research of urban systems, as well as applications in concrete urban development projects and academic teaching.

**What are your tasks?**

Digital City Science @ HCU develops digital analysis and participation tools (CityScopes) with local and international partners to support the design and planning process of new city districts and quarters. On the one hand, instruments are developed for the investigation of urban and landscape planning drafts during the planning process. On the other hand, participatory workshop tools are developed that co-creatively bring together planners and other participants.

As a developer for both back-end and front-end applications, you will drive the further development of the existing CityScope tool for the Hamburg Grasbrook in the project team. You independently adapt the existing analysis modules (ABM for pedestrian flows, noise, rainwater management, wind) for new applications and, if necessary, develop new analysis modules, for example on the topics of mobility, energy consumption and microclimate. In the Frontend, you visualize the results of the analysis modules. In addition, you will implement the user interface of the web application together with the team and support the technical development of a physical, interactive CityScope table. The front-end is based on Vue JS and uses Mapbox and deck libraries to display urban planning drafts and the results of the analysis modules.

**What do we expect?**

- University degree (MA, diploma) in urban development, computer science, building informatics, multimedia technology, geoinformatics or a related field.

**What else do we expect?**

- Interest in the topics of construction and urbanization as well as digital (smart) cities
- Good knowledge of Python; experience working with geospatial libraries such as Geopandas, Shapely, and GDAL is advantageous
- Good knowledge of Javascript; experience working with Mapbox GL JS or other mapping libraries is advantageous
- Knowledge of (agile) project and software development
- Knowledge of media technology
- Knowledge in the area of analysis, modelling, and visualization of geospatial data
- Project experience, self-organization, self-motivation
Good English knowledge

The HafenCity Universität Hamburg provides a family friendly environment and supports the compatibility of family and career.

Presence in Hamburg is required for this position.

We would point out that the applicant's classification in the level of experience within the advertised TV-L pay group within the recruitment procedure is based on the individually available professional experience of the candidate by the HR department of the HCU. Legally binding statements can only be made by the HR department of HCU.

For further information regarding this position please contact Herrn Prof. Noennig, +49 (040) 428 27-4034.

To apply, please send digitally as one PDF-file (max.10 MB) a detailed CV and a portfolio along with a letter of application by November 18th, 2021 to:

E-Mail: hcu-bewerbung@vw.hcu-hamburg.de

HafenCity Universität
Personalverwaltung
Stellen-Nr.: 2021-126 WiMi Grasbrook CityScope
Henning-Voscherau-Platz 1
20457 Hamburg

Please include the number “2021-126 WiMi Grasbrook CityScope” to your application.

Travel and accommodation costs for job interviews cannot be reimbursed by the HafenCity Universität Hamburg.