The HafenCity Universität Hamburg - Universität für Baukunst und Metropolenentwicklung (HCU) is the University of the Built Environment and Metropolitan Development. The 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 combines all study fields, as well as research and teaching.

In the Department of City Science Lab at the HafenCity Universität Hamburg following position is open, starting December 1th, 2021.

**Research Associate/Academic Assistant - Google Air View**

(Salary group 13 TV-L)

With 75% or 100% of the regular working hours. The position is limited of November 30th 2022.

The CityScienceLab (CSL) of the HCU researches on the digital transformations in our cities and develop data-based analyses and planning tools, with which the challenges of the current and future growth of cities may be addressed in an exact, efficient way. In co-operation with the Media Lab of the Massachussetts Institute of Technology (MIT), the interdisciplinary team of urban planners, sociologists, and various IT specialists develops interactive technologies that find application in worldwide city development projects.

**Tasks**

The quality of the air in our cities and everywhere is essential for a healthy life. To limit emission violations caused by industry, mobility and other factors, cities have been developing air pollution control plans in many places for several years. Google has been researching and developing a method for collecting air measurement data hyperlocally and mobile for some time.

HafenCity University Hamburg and Google would like to jointly investigate the use of this air measurement data and develop a basis for discussion at the city level on which a future use of hyperlocal measurements can support the improvement and evaluation of air quality. For this purpose, use cases in which the hyperlocal and mobile measurement data can be leveraged are to be developed together with municipal representatives. The focus will be on visualization and participation. The aim is to explore how air measurement data can be made accessible to the population in order to achieve a better general understanding of the topic of air pollution control in participatory tools, including urban planning concepts. Furthermore, it is planned to relate the collected air measurement data to urban planning, e.g. to determine dependencies between limit value exceedances and building and street shapes.

As Data Scientist in the project "Google Air View for Hamburg" you are responsible for:

- the integration of hyperlocal measurement data into the projects of the CityScienceLab of HafenCity University Hamburg.
- development of visualization concepts for the presentation of air measurement data in an urban context.
- development of interaction concepts for handling air measurement data in an urban context.
• implementation of use cases in cooperation with urban representatives
• preparation and implementation of workshops for the presentation of research results

Requirements
A combination of professional and academic experience and personal interest in the intersection of Data Science and urban research.

• BA or MA degree in Computer Science, Data Science, Geoinformatics or comparable with a focus on data acquisition, processing and interpretation of spatial data.
• experience in research projects with relevant focus areas such as urban / spatial / regional planning
• ability and interest in independent academic work
• experience in a multidisciplinary environment

Advantageous
• experience in empirical urban research (qualitative and quantitative methods, processing results).
• experience with one or more of these Data Science tools / resources: Python, JupyterLab, GIS, CityGML, BIM, Graph Database, Urban Data Platforms, OpenData.
• experience with one or more of these Visualization tools: Vue.js, OpenLayers.js, Cesium.js, Dashboards, Blender, Unity, Rhinoceros 3D or similar
• knowledge of English and / or German, both written and spoken

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 Sven Benkhardt, +49 (040) 428 27- 5621.

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 12th, 2021 to:

HafenCity Universität
Personalverwaltung
Stellen-Nr.: „2021-111 WiMi Google Air View“
Vorgangs-Nr.: 89432
Henning-Voscherau-Platz 1
20457 Hamburg
E-Mail: bewerbung@vw.hcu-hamburg.de

Please include the number “2021-111 WiMi Google Air View” to your application.

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