



# RESEARCH ASSOCIATE FOR THE PROJECT "AI-BASED BINAURAL SPEECH EXTRACTION AND REPRODUCTION" § 28 SUBSECTION 3 HMBHG

Institution: Faculty of Mathematics, Informatics and Natural Sciences, Department of Informatics, Department of Informatics,

Signal Processing (SP) Research Group

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: 2025-12-17** 

**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. They may also pursue doctoral studies outside of working duties.

This project advances assistive listening technology for hearables (e.g., wireless headphones/earbuds with embedded sensors and microphones) by developing machine learning-based algorithms for binaural speech extraction, noise reduction, and spatial audio processing. Key research topics include the development of efficient procedures to measure individualized head-related transfer functions (HRTFs) in everyday environments and the adaptation of generative machine learning models for speech extraction and separation.

Typical responsibilities include conducting independent research, authoring scientific publications, presenting findings at academic conferences and workshops, as well as communication with our international academic partners. The position offers the opportunity to work in a collaborative and supportive environment at the forefront of technology in hearable devices and acoustic signal processing.

The advertised position is aimed at candidates who have completed a Master's degree and who wish to pursue doctoral studies, culminating in a dissertation related to the scope of the above-mentioned project.

# Your profile

A university degree in a relevant field.

Examples of a university degree in a relevant field include Computer Science and Electrical Engineering. Applicants must have excellent knowledge of statistical signal processing and machine learning, as well as strong programming skills in Python and experience with modern machine learning libraries. Experience in speech or audio processing is also required. Candidates must be fluent in English, both spoken and written, and possess strong communication skills. Knowledge of German is an advantage; for non-native speakers, a willingness to learn German is expected.

Applicants must have obtained a Master's degree before the start of employment. Please attach copies of your degree certificates and transcript of records (bachelor's degree as well as master's degree or doctorate if applicable) to your online application.

### 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 University of Hamburg is committed to equity. Diversity enriches our university life, whether in our studies, research, teaching, education, or workplace. We therefore welcome all applications, regardless of gender, gender identity, sexual orientation, ethnic or social background, age, religion or belief, disability, or chronic illness.

The University of Hamburg strives to increase the number of women in academia, and encourages qualified female academics to apply.

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

# Instructions for applying

### **Contact**

Prof. Dr.-Ing. Timo Gerkmann timo.gerkmann@uni-hamburg.de +49 40 42883-2014 Stephanie Schulte-Hemming <a href="mailto:stephanie.schulte.hemming@uni-hamburg.de">stephanie.schulte.hemming@uni-hamburg.de</a> +49 40 42883-2014

### Location

Vogt-Kölln-Str. 30 22527 Hamburg Zu Google Maps

### Reference number

353

# **Application deadline**

2025-12-17

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

- cover letter
- CV
- copies of degree certificate(s) (bachelor's degree as well as master's degree or doctorate if applicable)
- transcript of records of bachelor and master programs

If you experience technical problems, send an email to <a href="mailto:bewerbungen@uni-hamburg.de">bewerbungen@uni-hamburg.de</a>.

More information on <a href="mailto:data protection">data protection</a> in selection procedures.



Die Universität Hamburg ist zertifiziert. audit familiengerechte hochschule

