

The **Max Planck Institute for Empirical Aesthetics** in Frankfurt am Main, Germany, investigates the attentional, cognitive, and affective mechanisms of aesthetic perception and evaluation.

The **Department of Neuroscience** invites applications for a

Scientific Software Engineer (m/f/x)

As part of an external funded project in collaboration with Dan Marcus, Wash. U; Sean Hill, CAMH; and members of the Cogitate Consortium, we are searching for a Scientific Data Engineer to contribute to the development of generic, cross-domain metadata management framework to foster the reuse of open datasets as well as reproducibility of cognitive neuroscience datasets i.e., metadata describing the experimental context of studies employing fMRI, MEEG, and ECoG. The successful candidate will also heavily contribute to the development of data infrastructure including storage, streaming and analysis tools for reproducible science based on the BIDS standard. Efforts will be devoted to develop tools for an efficient organization and exploration of raw and processed datasets. The position is ideal for networking in the open science community as it includes interaction with the open (neuro)science community; and is a unique opportunity for someone keen to contribute to the development of open-science and large-scale collaborations and aiming to contribute to community efforts and dissemination.

Your tasks in interdisciplinary research projects focus on:

- Review of existing approaches and tools, Requirement specification, Conceptual design, blueprint of implementation, Proof-of-concept application to Cognitive Neuroscience
- Presentation and publication of the results
- Exchange and networking within national (NFDI, MPDL) and international (RDA, EOSC) initiatives
- Developing, testing and implementing scientific software i.e., standardized neuroscience data acquisition, reproducible analysis pipelines and data storage for open science building on the BIDS standard
- Providing training and support for students and postdocs at varied levels of competence in modern, high quality, open science/source coding practices
- Providing support and training for data management
- Being the lab's interface with the Institute's core IT team

Your Profile:

- Completed university degree in natural sciences, engineering or a similar field (e.g., Mathematics, Statistics, Computer Science, Physics, Informatics, Neuroscience)
- Solid programming skills preferably in Python and/or C++
- Experience with Python libraries (e.g., NumPy, SciPy, Matplotlib, and pandas) is beneficial
- Experience with software development (e.g., version control with Git) and data organization (e.g., data bases with SQL and MySQL) is preferable
- Knowledge of relevant metadata standards and semantic techniques are beneficial (including W3C, schema.org, RDF, JSON-LD, etc)
- Interest in interdisciplinary projects and cognitive and systems neuroscience
- Familiarity or experience with scientific research methods
- High degree of self-organisation and independent work
- Team spirit, reliability, and sense of responsibility
- Complete spoken and written fluency in English; knowledge of German is a plus
- Preference will be given to candidates with prior experience in any of these domains: BIDS standards, Open science tools, neuroimaging techniques and data analysis (especially fMRI and MEG/EEG) and/or XNAT

We offer an exciting interdisciplinary field of engagement in an international scientific environment. The Institute is located in an attractive location with excellent infrastructure in Frankfurt's Westend neighborhood. You can expect a modern equipped workplace with flexible working hours (some remote working is possible) and the Opportunity to participate in (international) conferences and project meetings. Further development of your personal strengths, e.g. through direct interactions with the group of Dan Marcus and Sean Hill, as well

as researchers forming part of the Cogitate Consortium (e.g., Christof Koch, Gabriel Kreiman, Ole Jensen, Sylvain Baillet among many others) is possible.

The position will begin earliest on December 1, 2021 and is initially limited to two years, with the possibility of an extension pending funding approval.

Salary is paid in accordance with the collective agreement for the public sector (TVöD Bund), according to your qualifications and experience.

The Max Planck Society strives for gender equality and diversity. We are also committed to increasing the number of individuals with disabilities in our workforce. Therefore, applicants of all backgrounds are welcome.

Your application should include: your detailed CV (including details of your educational background and skills); a cover letter that explains why this position interests you and how your skills and abilities are suitable; copies of relevant degrees and/or certificates.

Please send these materials all together in a single PDF file, **before November 1, 2021**, by e-mail to job@ae.mpg.de using the code “**TWCF Engineer**” in the subject.

Please feel free to contact job@ae.mpg.de or Tanya Brown (Tanya.brown@ae.mpg.de) if you have any questions about the position.