

The Leibniz Institute for Agricultural Engineering and Bioeconomy is a pioneer and a driver of bioeconomy research. We create the scientific foundation to transform agricultural, food, industrial and energy systems into a comprehensive bio-based circular economy. We develop and integrate techniques, processes and management strategies, effectively converging technologies to intelligently crosslink highly diverse bioeconomic production systems and to control them in a knowledge-based, adaptive and largely automated manner. We conduct research in dialogue with society - knowledge-motivated and application-inspired.

To strengthen the **Department Data Science in Bioeconomy**, we are offering the following position

Postdoc in Bioinformatics (m/f/d)

Faced with the triple global crisis of climate change, biodiversity loss, and pollution, it is crucial to focus on the smallest living organisms, the microbes, whose role in maintaining ecological balance is vital. Microbiomes form the foundational system of life, and to effectively tackle these crisis, we must deeply understand their behavior and functions. By combining the power of expert knowledge and artificial intelligence we have the potential to unlock their complexities and develop effective and scalable solutions. Therefore, we are seeking a highly motivated, innovative and forward-thinking Postdoctoral Researcher in Bioinformatics to join our dynamic and interdisciplinary team and bridge the gap between the worlds of microbiome research and data science. This position offers a unique opportunity to contribute to cutting-edge research projects focused on collecting, analyzing, and interpreting large-scale genomic and environmental data, including metagenomics, while collaborating with leading experts in artificial intelligence and microbiome research.

Your responsibilities

- Develop, implement, and optimize bioinformatics pipelines for the analysis of high-throughput sequencing data, including metagenomics and whole-genome sequencing (WGS)
- Conduct integrative analyses of multi-omics datasets to extract meaningful biological insights.
- Perform meta-analyses by collecting, curating, and integrating data from multiple sources to uncover novel patterns and correlations and draw comprehensive conclusions.
- Collaborate with experimental biologists and AI experts to design and interpret computational experiments, bridging the gap between data science and experimental biology
- Prepare and publish research findings in high-impact peer-reviewed scientific journals and top-tier conferences.
- Present research outcomes at national and international conferences.
- Mentor and guide young scientists, in particular supervision of Bachelor, Master and PhD students
- Communication and transfer of project results to project partners.

Your qualifications

- PhD in Bioinformatics, Data Science, Computational Biology, Genomics, or a related field.
- Strong programming skills (e.g., Python, R, or other relevant languages).
- Experience in handling high-throughput sequencing data (e.g., amplicons sequencing, metagenomics, WGS).
- Proficiency in statistical and machine learning methods for biological data analysis.
- Experience with bioinformatics tools and databases (e.g., QIIME 2, DADA2, SILVA, and NCBI-SRA).
- Strong English communication skills, both written and verbal.
- Ability to work both independently and as part of a collaborative team.
- Experience in genomic and microbial data collection and integration.
- Experience in Meta-analysis highly desired.

We offer

- Exciting research tasks in the field of machine learning with socially highly relevant fields of application
- The opportunity to make valuable contributions to cutting-edge AI and microbiome research
- The opportunity to publish your papers in and contribute to conferences
- A highly motivated, international team

- Close cooperation with the Berlin Institute for the Foundations of Learning and Data (BIFOLD), the research group Machine Learning of the HHI and the Department of Computer Science of TU Kaiserslautern, the research group UMI lab and many others
- Family-friendly working conditions that promote the compatibility of work and family
- Participation on the VBB company ticket/ Deutschlandticket
- Company-owned electric bicycles and vehicles
- Our institute is located on the edge of a picturesque park-like landscape and is reachable by public transport or by bike

The salary depends on your qualifications and professional experience according up to salary group 14 TV-L. The full-time position (40 hours per week) is to be filled for 5 years. Part-time is possible.

For further information please contact **Prof. Dr. Marina Höhne and Dr. Ahmed Abdelfattah** (E-Mail: mhoehe@atb-potsdam.de, aabdelfattah@atb-potsdam.de) and visit our website www.atb-potsdam.de.

We are looking forward to receiving your application including a cover letter, CV, all credentials with grades (A level, Bachelor and Master/Diploma, PhD), recommendation letters and at least 3 reference contacts by the following deadline **October 25th, 2024** using ATB's online application form for the job advertisement, **code 2024-DS-4**, at <https://www.atb-potsdam.de/en/career/vacancies>. Applications received after the application deadline cannot be considered.

Equality of opportunity is part of our personnel policy. Disabled applicants with adequate qualification will be preferentially considered.

By submitting an application, you agree that your job application documents will be stored for a period of six months, even in the case of an unsuccessful application. Further information on the processing, storage and protection of your personal data can be found <https://www.atb-potsdam.de/en/services/data-protection-declaration-for-the-application-process>.

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