## About AITHYRA

AITHYRA is a new, dynamic institute in Vienna, Austria, dedicated to advancing a biomedical revolution by connecting cutting-edge Artificial Intelligence with transformative Life Science research. Supported through generous funding from the Boehringer Ingelheim Foundation and hosted by the Austrian Academy of Sciences, AITHYRA is building a world-class environment where AI specialists, experimental scientists, and engineers collaborate to push the boundaries of biomedical innovation. In February 2025, AITHYRA moved into its first laboratory and office space in the Marxbox at the Vienna BioCenter. In cooperation with the Vienna Business Agency, a new, jointly developed research building will be built by 2029.

**AITHYRA, the place where magic happens!**

AITHYRA's mission is to transform the way life sciences are conducted using AI to drive the biological revolution in the next decade, with the ultimate goal of improving human health.

# Scientific Computing Specialist - AI/ML & Bioinformatics (f/m/d)

Join the best of the academic, corporate, and start-up world, and support AITHYRA, the Research Institute for Biomedical Artificial Intelligence in Vienna. AITHYRA is seeking a highly motivated and skilled ML/AI Engineer and Bioinformatician to join our founding technical team. This hybrid role is critical to bridging the gap between cutting-edge biological research and advanced computational methods.

Reporting to Stephan Stadlbauer, Head of Scientific Computing, you will work closely with our scientists, providing expert support and developing robust computational pipelines that will power our

research breakthroughs. This is an opportunity to apply your deep scientific knowledge and technical expertise in a dynamic, startup-like research environment.

## Your role

- **Scientific & Technical Support**: Provide high-level computational and bioinformatics support to research scientists, translating complex biological questions into effective computational strategies and solutions.

- **Bioinformatics Pipeline Development**: Design, implement, test, and maintain reproducible bioinformatics pipelines for a wide range of biomedical data analysis tasks (e.g., genomics, proteomics).

- **Advanced Tooling Expertise**: Utilize, adapt, and provide support for state-of-the-art tools such as Alphafold and other relevant software for protein structure prediction, sequence analysis, and related areas.

- **Machine Learning Implementation**: Design, train, and evaluate machine learning models for various applications in biomedicine, working closely with researchers to define problems and interpret results.

- **Software Engineering**: Apply strong software development principles, including rigorous code management using Git, testing, and documentation.

- **Data Visualization**: Create compelling and informative data visualizations to explore complex datasets, interpret model results, and communicate findings.

- **Science Communication & Outreach**: Develop engaging visualizations, small applications, or interactive tools to effectively communicate complex scientific concepts and AITHYRA's work to diverse audiences, from experts to the general public.

## Your Profile

- PhD in Bioinformatics, Computational Biology, Computer Science, AI/ML, or a related field; postdoctoral experience preferred. Alternatively, a Master's degree with an extensive relevant track record.

- Demonstrated experience in designing, implementing, and deploying complex and scalable bioinformatics pipelines with e.g. Snakemake, Nextflow.

- Experience in the analysis of bulk and single-cell sequencing data (e.g., RNA-seq, scRNA-seq, ATAC-seq).

- Proven expertise with tools relevant to structural biology and sequence analysis, including Alphafold or similar methods.

- Hands-on experience training and running machine learning models using standard frameworks (e.g., TensorFlow, PyTorch, scikit-learn).

- Proficient in running and managing jobs on High-Performance Computing (HPC) clusters, utilizing SLURM for job orchestration.

- Strong programming skills (e.g., Python, R, Java) and proficiency with software engineering best practices, including version control with Git.

- Experience creating data visualizations for complex scientific data.

- Excellent communication skills with the ability to effectively interact with scientists from diverse backgrounds and levels of computational expertise.

- Ability to work independently, manage multiple tasks, and thrive in a fast-paced, collaborative research environment.

- Business fluency in English; a good command of German is advantageous.

We'd be particularly interested in candidates who also possess:

- An understanding of web development frameworks (e.g., Flask, Django, React) for interactive application creation.

- A grasp of cloud computing platforms (e.g., AWS, GCP, Azure) and containerization tools (e.g., Docker, Apptainer).

- Skills in mobile application development.

- Engagement with public science outreach or communication efforts.

## We offer

- **Shape the Future**: Be part of building a cutting-edge research institute from the ground up.

- **High Impact**: Contribute directly to groundbreaking research at the intersection of AI and Biomedicine.

- **Collaborative Environment**: Work alongside world-class scientists and engineers in a dynamic, interdisciplinary setting.

- **Innovative Technology:** Help define and implement the foundational computational infrastructure.

- **Unique Opportunity**: Experience the excitement and challenge of a brand-new research venture.

- Relocation allowance provided.

- Diverse social, cultural, and sports activities organized by the Institute.

- Excellent benefits, including insurance coverage and health services (company doctor, psychologist, etc.).

- Minimum gross annual salary of EUR 72,000.

- Workweek: 40 hours. Core hours: Monday to Thursday (09:00-15:00), Friday (09:00-13:00). Up to one home office day per week.

## Application details

Please apply online with a **CV** detailing your strengths and qualifications relevant to the position and a **cover letter**.

The deadline for submitting applications is **August 5th**.

**We look forward to your application!**

## Living and working in Vienna

Vienna is a truly international city that blends a rich cultural heritage with a modern, vibrant atmosphere. Renowned for its world-class music, art, and culinary scenes, it also offers exceptional public infrastructure, top-quality healthcare, and a safe environment, and is consistently ranked as one of the most livable in the world. As a global scientific hub, Vienna hosts numerous research institutions and fosters a collaborative, multicultural community that welcomes scientists from around the world. https://www.eiu.com/n/campaigns/global-liveability-index-2024/

AITHYRA is an inclusive employer. We value diversity and strongly encourage applications from all qualified individuals, regardless of background, race, gender, or personal identity.

**Learn more about the institute: https://www.oeaw.ac.at/aithyra**

Also add us at LinkedIn or BlueSky!

**Apply now**

# AITHYRA