



## 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.

## HPC/AI Systems Engineer (f/m/d)

As an HPC AI systems engineer, you'll join the team building a new HPC cluster specialized for AI workloads. You will bring advanced AI solutions to life, using and expanding your expertise in HPC systems engineering to tackle scalability and performance challenges.

Reporting to Stephan Stadlbauer, Head of Scientific Computing, your role involves technical skills, understanding AI methodologies, and collaborating with multidisciplinary teams. This position focuses on designing, implementing, and shaping infrastructure for cutting-edge AI research. If you love HPC infrastructures and AI, this role is perfect for you.

## Your tasks

- Participate in the comprehensive process of designing, deploying, configuring, and building a brand-new HPC cluster specifically optimized for AI workloads.
- Implement and optimize high-performance storage solutions tailored for large-scale AI datasets and model training.
- Configure and manage the workload manager (SLURM) to efficiently schedule, monitor, and manage diverse jobs including AI training and inference.
- Select, install, and configure key software components, including parallel file systems, networking fabrics, and AI-specific libraries and frameworks (e.g., TensorFlow, PyTorch).
- Troubleshoot and resolve complex technical issues related to hardware (including GPUs!), software, and networking components during the cluster build and initial operation phases.
- Collaborate closely with scientists to understand their computational needs and translate them into effective infrastructure solutions.
- Provide technical support and guidance to scientists for running their AI workloads and jobs on the cluster, including job submission, monitoring, and basic troubleshooting.
- Monitor system performance, resource utilization (especially GPU resources!), and job efficiency to optimize the AI workflow and infrastructure.
- Document system design, configurations, procedures, and best practices for building and operating the AI HPC cluster.

## Your Profile

- Education in Computer Science, Information Technology, or a related field (or equivalent practical experience).
- Initial experience working with HPC systems, large-scale Linux environments, or complex computing infrastructure.
- A solid foundation in Linux system administration and scripting (e.g., Bash, Python).
- Familiarity with configuration management concepts and tools (Ansible is a strong plus), with a strong desire to learn and apply automation best practices.
- Understanding of parallel or network file systems (e.g., BeeGFS, Lustre, NFS) and an eagerness to learn about optimizing storage for AI workflows.
- Familiarity with high-speed networking concepts (InfiniBand is a plus) and interest in learning and implementing high-performance interconnects.
- Experience with or interest in working with GPU-accelerated computing.

- Excellent problem-solving skills and a proactive attitude towards tackling complex technical challenges in a fast-paced environment.
- A genuine passion for High-Performance Computing, Artificial Intelligence, and a strong desire to learn about new technologies.
- Ability to communicate effectively and collaborate with technical and research teams.
- Business fluency in English; a good command of German is advantageous.

#### **Bonus**

- Experience with containers and orchestration (e.g., Docker, Apptainer, Kubernetes).
- Familiarity with cloud computing concepts (AWS, Azure, GCP).
- Experience working with research scientists or in an academic environment.
- Familiarity with specific AI frameworks or libraries (TensorFlow, PyTorch, etc.).

## **We offer**

- The unique opportunity to build cutting-edge AI infrastructure from the ground up and shape its future.
- Work at the forefront of Artificial Intelligence research in a stimulating and collaborative environment.
- Significant learning and development opportunities in key areas like InfiniBand, SLURM, Ansible, GPU management, and AI system optimization.
- Direct impact on enabling groundbreaking scientific discoveries.
- 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 54,000.
- 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

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