

2.2 Job Posting for Researcher at **PACT**.

Parque do Alentejo de Ciência e Tecnologia:
Herdade da Barba Rala, R. Luís Adelino Fonseca 1A, 7005-345 Évora, Portugal

Eligible sending organisations •

AUTH, JSI

Role title •

Digital Twin & Large Language Models Researcher

Environment •

Join PACT **to connect with companies in industry 4.0** fields, **gain insights applicable to your research**, and **collaborate** within a dynamic research ecosystem **to develop and deliver solutions with real-world impact.**

PACT's **Future Lab** is investing in humanoid robots, with capacity already available for data collection, robot learning, and experimentation.

We excel in bridging industry and academia, practical challenges, and opportunities for collaboration and **technology transfer.**

Watch a short video of PACT's headquarters and working environment here.

What you will work on

- Architect, configure, and manage a **high-processing power server** dedicated to **deep learning** and real-time **data processing**.
- Build high-fidelity **digital twins** of physical spaces and robotic systems using NVIDIA Omniverse (or similar) for offline **reinforcement learning** and scenario testing, such as for navigating laboratory spaces or logistics warehouses, or collecting images and sensor readings in real conditions in agriculture.
- Develop LLM-driven task-planning frameworks that translate **natural language commands** into semantic execution paths for autonomous robots.
- Hands-on **robotics training actions** for students in the Alentejo, collaborating with schools and training partners.

What you will gain

The secondee will gain:

- Direct experience deploying and maintaining **enterprise-grade GPU servers** for heavy AI workloads**.**
- Proficiency in NVIDIA Omniverse (or similar) and **digital twin ecosystem design.**
- Collaboration with international research partners, Portuguese **innovation hubs,** and deep-tech commercialisation.

Desired profile

- **First Stage** or **Recognised Researcher** in Computer Science, Software Engineering, Artificial Intelligence, Mathematics, or similar field.
- Proficiency in Python, PyTorch, TensorFlow, or other **machine / deep learning languages / platforms.**
- Experience in **LLM fine-tuning** or prompt/agent engineering, and physics-based robotic simulation environments.
- Previous work with distributed computing, GPU acceleration, and synchronizing virtual environments with physical telemetry.
- Previous work in system administration based in Linux and for GPU-intensive tasks.

Duration & Flexibility

3 to 5 months (continuous stay) between May and November 2027
Can be split into separate stays **of at least 6 weeks each** (for example 2 x 6-8 weeks) upon agreement.
The month of August is not recommended, as PACT's offices observe annual leave at that time.