



# Robotics ML Research Engineer

Data and Models

Type : Full-time

Location : Delft, Zurich, or remote

Apply : Send your CV + short note + relevant work links to [careers@latentworlds.ai](mailto:careers@latentworlds.ai)

LatentWorlds builds the **deployment backend for physical AI**. We turn fleet hours into compounding autonomy by making robotics data reliable to collect, usable to retrieve, and practical to turn into training and debugging artifacts.

DataCore is our product, but we also run the loop ourselves. We are starting an internal data collection and model training effort (initially focused on manipulation) to stress-test the stack and to build the primitives teams actually need for **learning at scale**.

## The Role

You will lead hands-on robotics and ML work that makes the DataCore roadmap real. This is **not a paper-only research role**. The output we care about is a loop that runs: collect → curate → train → evaluate → repeat.

Because we are at an early stage, you will have **unusual leverage**. The same person can shape how data is captured on the robot, how it is represented in the backend, and how it turns into a dataset a model can learn from.

## What You Will Work On

Projects vary, but you will likely touch a mix of:

- **Data collection on real robots:** task design, instrumentation, time sync, and capture policies that survive messy reality.
- **Dataset construction:** defining what an episode is, how to slice it, what metadata matters, and how to keep versions reproducible.
- **Quality control:** automatic checks for dropped topics, timestamp gaps, corrupted payloads, and other failure modes that waste training time.
- **Baseline training and evaluation:** training models on collected data, building evaluations that catch regressions, and writing down what changed between runs.
- **Tight feedback into the platform:** working with the systems team so retrieval, provenance, and exports match how training actually works.

## Why This Exists

Robotics teams do not fail because they cannot write a model. They fail because the learning loop breaks. If you cannot trust the data, you cannot trust the results. If you cannot reproduce a dataset, you cannot debug a regression.

We want to build the backend that makes the loop operable. To do that well, we need to run the loop ourselves and feel the pain directly.

## What Success Looks Like

---

In the first weeks, success is setting up a clean end-to-end path from robot recording to a first dataset and a baseline model, with enough metadata and checks that the result is reproducible.

Over the next months, success is making that loop scale:

- More hours collected without data loss.
- Faster iteration from incident to a training example.
- Dataset versions that make experiments comparable.
- Evaluations that make regressions obvious.

## What We Are Looking For

---

We care most about **talent, ownership, and learning speed**. You should be comfortable in both robotics and ML, and you should like doing the work yourself.

Strong candidates usually have evidence of:

- **PhD-level depth** (a PhD is welcome but not required if your work shows it) in robotics, ML, or a closely related field.
- **Hands-on experience** with real robots and real sensor data (not only simulation).
- Experience **training models from multi-modal data** (vision, proprioception, force/torque, logs) and diagnosing why they fail.
- Ability to write **production-quality code** for experiments and tooling (Python is fine; Rust/C++ is a plus).
- **Clear communication**: you can explain an experiment, its assumptions, and what the result actually means.

### Bonus Points (Not Required)

- Manipulation learning (imitation learning, reinforcement learning, or hybrid approaches) and evaluation in the real world.
- Data-centric ML: dataset versioning, provenance, active sampling, labeling workflows.
- Robotics middleware integration (ROS/ROS2) and sensor calibration and synchronization.
- Experience building CI-for-robots style evaluation loops.

## How to Apply

---

Email [careers@latentworlds.ai](mailto:careers@latentworlds.ai) with:

- Your CV or LinkedIn.
- A short note on what you have built that is most relevant (and why).
- Links to papers, code, demos, writing, or a portfolio (if available).

If you are excited about the problem but do not match every bullet, you should still reach out.

### Equal Opportunity

LatentWorlds AI is an equal opportunity employer. We welcome applicants of any background and identity, and we care most about the quality of your work and your ability to collaborate.