

# ARTISANS LOVE ROBOTS

## WE'RE HIRING: COMPUTER VISION R&D INTERN

Artisans Love Robots is an advanced fabrication and robotics studio based in Rubí (Barcelona), and we're looking for a Computer Vision R&D Intern to join our team. We work on unique projects across architecture, art, and advanced manufacturing, combining skilled metal craftsmanship with robotic processes.

### ABOUT THE ROLE

The internship brings together computer vision, machine learning, data analysis, and robotics. Its purpose is to help us observe, measure, and better understand what happens during fabrication, with the longer-term aim of making our robotic processes more measurable and autonomous. You will work alongside our team on internal R&D and live fabrication projects, with access to KUKA robots used for wire arc additive manufacturing (WAAM), incremental sheet forming, and full-scale production of sculptural art pieces.

### WHAT YOU'LL DO

- Design and calibrate a camera-based monitoring setup.
- Collect, organise, and analyse visual, robot, and process data.
- Develop and evaluate computer-vision and machine-learning tools for process monitoring.
- Integrate and test these tools in the workshop, documenting methods and results.

Relevant methods may include feature detection and matching, image segmentation, object detection using YOLO or comparable models, and object tracking supported by state estimation techniques such as Kalman filtering. The approach will depend on the task: we value practical, reliable solutions rather than a predetermined set of algorithms.

### WHAT YOU BRING

We welcome applicants with backgrounds in computer science, AI, robotics, mechatronics, digital fabrication, or related technical fields. Master's students are particularly encouraged to apply, and recent graduates with relevant experience are also welcome.

We are particularly interested in:

- Strong programming skills, ideally in Python.
- Practical experience with computer vision or image processing.
- An understanding of machine learning and experimental data analysis.
- Experience or a strong interest in robotics, digital fabrication, and the integration of AI into physical production.

Qualifications matter, but we care most about technical ability, curiosity, autonomy, and the willingness to investigate problems thoroughly.

Professional working English is required. Spanish or Catalan is a strong advantage.

### NICE TO HAVE

Experience with OpenCV, PyTorch or TensorFlow, industrial cameras, camera calibration, ROS, or KUKA programming would be valuable. Familiarity with WAAM, Rhino, or Grasshopper is also useful, but not essential.

We do not expect candidates to know every tool listed. Strong programming and computer-vision fundamentals are more important than experience with a particular robot or fabrication process.

### WHAT WE OFFER

You will gain practical experience applying computer vision to real fabrication processes, moving directly between software development, physical testing, and production. Our small team brings together architecture, computational design, and metalwork. The environment is informal, collaborative, and fast-moving, with room to propose ideas, test different approaches, and contribute to how we work—without unnecessary bureaucracy.

This is a paid internship. Depending on individual circumstances, additional support may also be available for commuting and other placement-related expenses.

Practical details :

Location: Rubí, Barcelona — on-site.

Commitment: 40-hour workweek; part-time can also be considered.

Duration: Minimum 3 months.

University and Erasmus+ placements are welcome. International applicants must have the right to work in the EU and be eligible to undertake the placement in Spain.

### APPLY

Send us your CV, a short introduction, and examples of relevant work. These may include GitHub repositories, university projects, technical reports, videos, or other work samples.

Email: [jobs@artisansloverobots.com](mailto:jobs@artisansloverobots.com)

Subject: "Application Computer Vision R&D Intern\_[your name]"

Applications may be written in English or Spanish.