FRANCISCO LOURENÇO

Freelance 3D Data Specialist | ML & CV Engineer

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in https://linkedin.com/in/franciscorlourenco ⬡ https://github.com/francisco-lourenco-2
ⓘD https://orcid.org/0000-0001-7081-5641 📅 Date of Birth: 23-04-1996

WORK EXPERIENCE

Machine Learning Engineer
Anything World

📅 Jan 2023 – Apr 2025   📍 London, UK (Remote)

- Led the design and deployment of ML systems for 3D shape classification, canonical alignment, and part segmentation powering the Animate Anything tool and API.
- Reached 95.6% F1-score on ModelNet40 with a custom multi-view GCN optimized for rotation invariance and speed.
- Created a symmetry-aware rotation estimator with 2.47° median error across 220+ 3D models.
- Achieved 88.8% mIoU on ShapeNet Part via an optimized GCN segmentation pipeline.

3D Computer Vision Engineer
coatingAI

📅 Sep 2021 – Jan 2023   📍 Barcelona, Spain

- Sole developer of a multi-camera RGB-D scanning system for real-time 3D reconstruction of parts in powder coating lines.
- Delivered a complete software pipeline for RGB-D fusion, camera pose estimation, and model generation, deployed successfully in production.

Junior Researcher
Institute of Systems and Robotics

📅 Jan 2021 – Jun 2021   📍 Coimbra, Portugal

- Built a vision-based anomaly detection system for industrial glass bottle inspection using hybrid ML and classical CV methods.

EDUCATION

MSc in Electrical and Computer Engineering
University of Coimbra

📅 2018 – 2021   📍 Portugal

- Specialized in Computer Vision and Machine Learning.
- Thesis: *6DoF Object Pose Estimation from RGB-D Images using ML* — graded 19/20.

MSc Exchange Program
Aalto University

📅 2018 – 2019   📍 Espoo, Finland

- Coursework focused on AI and Robotics.

BSc in Electrical and Computer Engineering
University of Coimbra

📅 2015 – 2018   📍 Portugal

PUBLICATIONS

Intel RealSense SR305, D415 and L515: Experimental Evaluation and Comparison of Depth Estimation
VISIGRAPP 2021

Evaluation of the Accuracy of Pose Estimation Based on Relative Pose
RECPAD 2021

TECHNICAL SKILLS

Python PyTorch TensorFlow OpenCV
Open3D C++ SQL HTML CSS
MatLab ROS Blender CAD Docker

SOFT SKILLS

Skill	Rating
Team Work:	●●●●●●●○○○
Organization:	●●●●●●●●○○
Leadership:	●●●●●○○○○○
Communication:	●●●●●●○○○○

LANGUAGES

Portuguese native

English C2

Spanish C2

FIELDS OF INTEREST

Machine Learning Computer Vision
Point Clouds Data Science Mathematics
Coding Health Care Robotics
Automation and Control
Self Driving Vehicles 3D Animation

"A real team-player, who has the ability to work unsupervised and drive strategic projects."