

JOSEP LOPEZ CAMUÑAS

Barcelona, Catalunya, Spain

joseplcam@gmail.com ◊ yusepp.github.io ◊ Github ◊ Twitter

EDUCATION

Universitat Oberta de Catalunya (UOC)

2022 – 2026

Ph.D. in Computer Science

- Advised by Prof. Agata Lapedriza.
- Research focus: Multimodal Learning and Perception; Emotion and Affect Understanding; Explainable / Interpretable AI; Human–Robot Interaction and Social Robotics.

Universitat Autònoma de Barcelona (UAB)

2021 – 2022

M.Sc. in Computer Vision

- Thesis: *Non-verbal Synchrony Analysis in Dyadic Interaction*. Grade: A.
- Completed across four partner universities: UPF, UPC, UAB, and UOC.
- Coursework included Optimization Techniques, Machine Learning for Vision, 3D Vision, Visual Recognition, and Video Analysis.

Universitat de Barcelona (UB)

2016 – 2020

B.Sc. in Computer Science

INDUSTRY AND RESEARCH EXPERIENCE

Universitat Oberta de Catalunya (UOC)

Sept 2022 – Current status

PhD Student

Barcelona, Catalunya, Spain

- Ph.D. research on Emotional AI for Social Robotics, advised by Prof. Agata Lapedriza.

Never Home Alone (NHoA)

2022 – 2025

Researcher — Affective and Social Robotics

Barcelona, Catalunya, Spain

- Developed socially intelligent robotics for elderly care, integrating affective computing with assistive technologies.
- Designed emotion-perception systems, integrated affective models, conducted user interviews, and collected a small dataset of interviews to the elderly.

MIT CSAIL — Torralba Lab
PhD Visiting Student

Feb 2025 – June 2025
Cambridge, Massachusetts, USA

- Collaborated with Prof. Antonio Torralba and Dr. Tamar Rott Shaham.
- Researched Automated Interpretability Agents for Vision–Language Models (VLMs).
- Adapted MAIA (Multimodal Automated Interpretability Agent) to operate with open-source agent backbones.

Institute for Experiential AI (EAI) — Northeastern University
PhD Visiting Student

Mar 2024 – June 2024
Feb 2025 – June 2025
Boston, Massachusetts, USA

- Worked with Prof. Agata Lapedriza and Dr. Yanjun Zhu.
- Conducted research on improving visual emotion and affect representations.

Universitat Oberta de Catalunya (UOC)
Research Intern in Computer Vision

Oct 2021 – June 2022
Barcelona, Catalunya, Spain

- Worked on facial and body analysis methods for computer vision.
- Performed computational modeling for dyadic interaction analysis.

DMD.Solutions
Data Scientist

Feb 2020 – Nov 2021
Barcelona, Catalunya, Spain

- Explored predictive maintenance approaches for aviation systems using geospatial and manufacturer data.
- Developed and evaluated early-stage models for automated aircraft fault prediction.

ACADEMIC SERVICE

- Reviewer: CVPR 2025, NeurIPS 2025, WACV 2025, CIARP 2025.
- Master Thesis supervision: Diana Tat.
- Student Volunteer / Organization: KDD 2024, Barcelona.
- Teaching Assistant at UPC: Advanced Computer Vision (Video Architectures) — Postgraduate AIDL Program: Artificial Intelligence with Deep Learning.

RESEARCH PUBLICATIONS

- 2025 **Automated Detection of Visual Attribute Reliance with a Self-Reflective Agent.** Christy Li, Josep Lopez Camuñas, Jake Thomas Touchet, Jacob Andreas, Agata Lapedriza, Antonio Torralba, Tamar Rott Shaham. NeurIPS 2025.
- 2025 **OpenMAIA: A Multimodal Automated Interpretability Agent Based on Open-Source Models.** Josep Lopez Camuñas, Christy Li, Tamar Rott Shaham, Antonio Torralba, Agata Lapedriza. Mechanistic Interpretability Workshop at NeurIPS 2025.
- 2024 **Experimenting with Affective Computing Models in Video Interviews with Spanish-Speaking Older Adults.** Josep López Camuñas, Cristina Bustos, Yanjun Zhu, Raquel Ros, Agata Lapedriza. WACV 2024.

SKILLS

Machine Learning: Deep Learning (PyTorch, TensorFlow, HuggingFace), Affective Computing, Multimodal Learning.

LLMs & Deployment: vLLM, LLM serving, HuggingFace Inference, FastAPI integration.

High-Performance Computing: Distributed training (DDP, Accelerate), multi-GPU/multi-node, NVIDIA NGC.

Cloud & DevOps: AWS, Azure, Docker, Kubernetes, Linux systems.

Data & Software: NumPy, Pandas, Scikit-Learn, Git, MATLAB, Web development.

Programming: Python, C++, Java, C, JavaScript, HTML.

Mathematics: Linear algebra, probability, statistics, vector calculus.

Languages: Spanish (native), Catalan (native), English (fluent).