

PROFILE

Master's in Computer Vision (UAB) and Bachelor's in Telecommunications Engineering (UPC), with expertise in signal processing, machine learning and deep learning built across industry roles and research internships in Barcelona and Lausanne. Currently a PhD researcher at Universitat de Barcelona & Eurecat, supervised by Prof. Petia Radeva and Dr. Vicent Ribas, working on generative models for synthetic medical imaging — primarily CT and MRI.

EXPERIENCE

PhD Researcher, Generative AI for Digital Health

Dec 2024 – Present

Universitat de Barcelona × Eurecat · Barcelona, Spain

- PhD in Mathematics & Computer Science (UB), co-supervised with Eurecat's Digital Health Unit — advised by Prof. Petia Radeva and Dr. Vicent Ribas.
- Researching generative synthesis of medical images, primarily CT and MRI, including latent diffusion models for 3D chest CT.

Computer Vision Engineer

Nov 2023 – Nov 2024

Intek Medical · Barcelona, Spain

- Built AI-driven software for automated hair and skin analysis, supporting personalized, patient-centric treatment plans.
- Applied deep learning to human 3D reconstruction to extract anthropometric measurements.
- Designed AI-assisted data acquisition and annotation tools to scale up training dataset creation.

Research Intern

May 2023 – Sept 2023

Computer Vision Center (CVC) · Barcelona, Spain

- Applied large language models to Document Visual Question Answering with PyTorch and Hugging Face.
- Improved performance by injecting spatial layout information (bounding boxes) into prompts.
- Added a Vision Transformer module so the language model could interpret visual tokens directly.

Research Intern

Jun 2022 – Aug 2022

LTSS, EPFL · Lausanne, Switzerland

- Contributed to the "3T-study" cervical cancer screening program with the Geneva University Hospitals (HUG) and Dschang District Hospital, Cameroon.
- Built deep learning models to detect strong motion artifacts in smartphone-captured VIA screening videos.

EDUCATION

Master's Degree in Computer Vision

Sep 2022 – Sep 2023

Autonomous University of Barcelona (UAB)

Grade: 8.9/10 — Top 5 best students award. Relevant courses: Machine Learning, Deep Learning, 3D Vision, Video Analysis.

Bachelor's Degree in Telecommunications Engineering

Sep 2018 – Jun 2022

Polytechnic University of Catalonia (UPC)

Grade: 7.9/10 — Top 10% of class. Relevant courses: Signal Processing, Audiovisual Processing, Networks, Programming.

PUBLICATIONS

Anatomically Guided Latent Diffusion for High-Resolution 3D Chest CT Synthesis

Oliveras, A., Marí, R., Redondo, R., et al. — Scientific Reports, 2026 — doi.org/10.1038/s41598-026-51634-4

Automated Cervix Region Detection for Cervical Cancer Screening

Oliveras, A. (supervised by Prof. J-P. Thiran) — MICAD 2023, endorsed by the MICCAI Society

SKILLS

Python PyTorch TensorFlow Keras OpenCV
Scikit-Learn C / C++ Java MATLAB Blender
MeshLab

LANGUAGES

Catalan – Native Spanish – Native English – C2
French – A2

DISTINCTIONS

- Top 5 MCV List Award (Sep 2023) — top 5 GPA, Master's in Computer Vision, UAB
- Recognition for the university entrance exams, PAU (Jun 2018)