



Marina Crespo Aguirre

BSC IN BIOMEDICAL ENGINEERING - UC3M
MSC IN MEDICAL IMAGING - ETH ZÜRICH

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 [Github](#)



PROFILE

I am a curious, hard-working Biomedical Engineer, passionate about the fields of Machine Learning and Computer Vision and their application to solve problems relying at the intersection of Healthcare and Engineering, with specific focus on the Medical Imaging industry.

Languages :

Spanish || English (C1) | French (C1) | German (A1)

Skills :

Signal & Image Processing · MATLAB · Python · Rstudio
Machine Learning · Computer Vision

EDUCATION

BSc in Biomedical Engineering

Universidad Carlos III Madrid - Spain
2019 - 2023

International Mobility Grant

University of Maryland - USA
2021-2022

MSc in Medical Imaging

ETH Zürich
2023 - Fall 2025

AWARDS

University Studies Grant

Fundación Emilio Botín - Santander
• Call September 2019
• Call September 2022

Post-Graduate Fellowship

La Caixa Foundation

Scholarship awarded to 100 Spanish & Portuguese graduate students to pursue post-graduate studies abroad.
(Call June 2023)

CONFERENCES & PAPERS

Scientific Paper (June 2023)

"Evaluation and assessment of clique arrangements for the estimation of omnipolar electrograms in high density electrode arrays"
Physical & Engineering Sciences in Medicine
[doi: 10.1007/s13246-023-01287-8](https://doi.org/10.1007/s13246-023-01287-8)

EMBS Sydney (July 2023) Poster

"Assessment of the Interelectrode Distance Effect over the Omnipole with High Multielectrode Arrays"

CASEIB XL (November 2022) Presenter

"Estudio Comparativo con Señales Epicárdicas de las Limitaciones del Omnipolo con Electrodo de Alta Densidad"

EXPERIENCE

Undergraduate researcher - University of Maryland

January - May (2022)
University of Maryland, College Park, USA

Design of a bio-inspired soft-robotic model of a marine turtle at BAM lab .

Skills : Solidworks, 3D printing, soft robotics, fluid mechanics

Undergraduate researcher - Bio-ITACA, UPV

May (2022) - September (2023)
Universidad Politécnica Valencia, Spain

Research on the development of novel biomarkers for the electrophysiologic characterization of cardiac substrate.

Byproducts from internship:

- [Journal Article](#)
- Oral and Poster Presentations at National and International conferences

Skills : Signal processing, MATLAB, Rstudio

Graduate researcher - Paul Scherrer Institute

February - June (2024)
Villigen, Switzerland

Master research internship in collaboration with ETH Zürich, on the investigation of non-invasive techniques for eye tracking, with application in proton therapy of ocular tumours.

Skills : Image analysis & processing, Eye Modelling, Computer Vision

Graduate researcher - CVL ETH

September 2024 - March 2025
Computer Vision Lab - ETH, Zürich, Switzerland

Master research internship on Deep Learning models for the reconstruction of MR images.

Skills : Python, Deep learning, Computer Vision, MRI reconstruction, Neural Implicit Fields

Visiting Student - Harvard Medical School

April 2025 - October 2025
Athinoula A. Martinos Lab for Biomedical Imaging - Boston, MA, USA

Master Thesis project on Deep Learning methods for the reconstruction of synthetic Ex-vivo MRI scans from dissection photographs.