

EDUCATION	<b>ETH Zürich</b>	Zürich, Switzerland
	<i>M.Sc. in Medical Imaging</i>	2023 – 2025
	<ul style="list-style-type: none"><li>• Relevant courses: Introduction to Machine Learning, Deep Learning, Image Analysis &amp; Computer Vision, Mobile Health &amp; Activity Monitoring, Medical Image Analysis</li></ul>	
	<ul style="list-style-type: none"><li>• GPA: 5.2/6.00</li></ul>	
	<b>Universidad Carlos III de Madrid</b>	Madrid, Spain
	<i>B.Sc. in Biomedical Engineering</i>	2019 – 2023
	<ul style="list-style-type: none"><li>• Relevant courses: Numerical Methods, Systems &amp; Signals, Solid Mechanics, Control Engineering (Honors), Instrumentation and multimodality imaging (Honors)</li></ul>	
	<ul style="list-style-type: none"><li>• GPA 8.77/10.00</li></ul>	
EXPERIENCE	<b>AI Medical</b>   Zürich	2025.12 - <i>present</i>
	<ul style="list-style-type: none"><li>• Internship at AI startup in radiology, working with vision models</li><li>• Development of deep learning frameworks for the automatic lesion evolution detection in metastatic and multiple sclerosis MRI.</li><li>• Skills: Python, Pytorch, Automatic segmentation, Vision Transformers, Generative AI</li></ul>	
	<b>Harvard Medical School</b>   Boston, MA	2025.04 - 2025.10
	<ul style="list-style-type: none"><li>• MSc thesis project conducted at LEMoN group, associated to Harvard Medical School and Massachussets General Hospital, on the machine-learning based generation of 3D brains from 2D photographs of dissection</li><li>• Working on manuscript that will be sent for publication at eLife Science Advances</li><li>• Skills: Python, Pytorch, cluster computing, 3D rendering, Diffusion Models, UNet architectures, Neural Implicit Fields.</li></ul>	
	<b>CVL</b>   ETH Zürich	2024.09 - 2025.03
	<ul style="list-style-type: none"><li>• Pushing the state of the art in MRI reconstruction, exploring deep learning strategies to recover under-sampled k-space data from accelerated MRI acquisitions</li><li>• Skills: Python, Pytorch, NERFs, cluster computing, MRI reconstruction.</li></ul>	
	<b>PSI</b>   Villigen, Switzerland	2024.03 - 2024.06
	<ul style="list-style-type: none"><li>• Investigation and design of non-invasive techniques for eye tracking, with application in proton therapy of ocular tumors</li><li>• Skills: Python, 3D geometric models, algorithm optimization.</li></ul>	
	<b>BioITACA</b>   UPV, Valencia, Spain	2022.06 - 2023.09
	<ul style="list-style-type: none"><li>• Development of novel biomarkers for the electrophysiological characterization and detection of arrhythmogenic tissue</li><li>• Journal Publication; Physical and Engineering Sciences in Medicine.</li><li>• Poster at IEEE EMBS Sydney 2023, and presentation at Annual Congress of the Biomedical Engineering Society, 2022.</li><li>• Skills: MATLAB, RStudio, signal processing.</li></ul>	
	<b>BAM Lab</b>   University of Maryland, College Park, MD	2022.02 - 2022.05
	<ul style="list-style-type: none"><li>• Design, 3D printing and testing of a soft-robotic prototype of a marine turtle</li><li>• Skills: Soft robots, SolidWorks, fluid mechanics, CAD modelling, prototyping, 3D printing</li></ul>	

PUBLICATIONS	<ul style="list-style-type: none"> <li>• S Ruipérez-Campillo, <b>M Crespo</b>, A Tormos, A Guill, A Cebrián, A Alberola, J Heimer, F J Chorro, J Millet, F Castells. Evaluation and assessment of clique arrangements for the estimation of omnipolar electrograms in high density electrode arrays. <i>Phys Eng Sci Med</i>, 2023 Sep. 46(3):1193-1204 doi:10.1007/s13246-023-01287-8.</li> <li>• <b>M Crespo</b>, S Ruiperez Campillo, R Casado-Arroyo, J Millet, F Castells. Assessment of the Interelectrode Distance Effect over the Omnipole with High Multielectrode Arrays. (IEEE EMBS) (Sydney, 2023).</li> <li>• <b>M Crespo</b>, S. Ruiperez-Campillo, I. Segarra, A. Guill, A. Tormos, J Millet, F Castells. Estudio Comparativo con Señales Epicárdicas de las Limitaciones del Omnipolo con Electrodo de Alta Densidad. XL Congreso Anual de la Sociedad Española de Ingeniería Biomédica (CASEIB 2022) (Valladolid, España. 2022)</li> </ul>		
AWARDS AND HONORS	<ul style="list-style-type: none"> <li>• <b>La Caixa Fellowship</b> 2023.06 International post-graduate scholarship awarded yearly to 100 graduate students (Spain &amp; Portugal)</li> <li>• <b>Fundacion Botin Scholarship</b> Undergraduate grant 2019.09 &amp; 2022.09</li> </ul>		
SKILLS	<p><b>Languages:</b> Spanish, English, French, German.</p> <p><b>Programming:</b> Python, RStudio, MATLAB.</p>		