

Mattia Carello

● WORK EXPERIENCE

15/05/2023 - 09/07/2026 - BOLOGNA, ITALY

HPC DATA ENGINEERCINECA

- Development and improvement of client-side functionalities on scientific web platforms
- Creation and visualization of graphic content related to scientific and meteorological sectors
- Diffusion and distribution of scientific data through interactive interfaces
- Maintenance and coordination of platforms

I was involved as a support on two European projects, focusing on Angular-based development and the visualization of complex scientific datasets:

1. MeteoHub: now adopted as a national meteorological service; managing geo-referenced weather data (mono/multi GeoTIFF, GeoJSON, grib, grid, netCDF), implementing multilayer maps (Leaflet, gdal) rendered via a web server (Geoserver, WMS, Mosaic Layers), developing interactive pipelines
2. EO4EU: in the visualization team; shaping 3D scientific data (Blender) and rendering scenes using the ATON framework (Three.js+Node.js), accessible through web, VR, and AR environments.

01/01/2023 - 14/05/2023 - LERICI, ITALY

RESEARCH FELLOWCNR-ISMAR

My role involved analyzing (xarray, matlab, pandas) and visualizing in situ oceanographic data (netCDF) from the CALYPSO 2022 experiment: underwater profiles provided as netCDF files collected by drifting buoys, gliders, floats, and UCTD devices

01/06/2018 - 01/07/2019 - BOLOGNA, ITALY

CONSULTANTDYNAMICA SRL

- Managing relationships with several clients
- Building decision trees based on the needs of the client
- Developing tailored solution on CRM platforms (Dynamics 365)
- Training users

● EDUCATION & TRAINING

01/10/2019 - 31/12/2022 - BOLOGNA, ITALY

PHD-ALMA MATER STUDIORUM

Field(s) of study:Environmental protection technology , Electronics and automation | **Thesis:** Underwater Photogrammetry with the Support of an Unmanned Underwater Vehicle

01/09/2019 - 31/07/2020 - TRIESTE, ITALY

MASTER-MHPC

Field(s) of study:Software and applications development and analysis , Computer use , Database and network design and administration

01/10/2015 - 16/03/2018 - BOLOGNA, ITALY

MASTER DEGREE- ALMA MATER STUDIORUM

Field(s) of study:Environmental protection technology , Chemical engineering and processes , Mining and extraction , Electricity and energy , Materials (glass, paper, plastic and wood) | **Thesis:** Analysis of an Inversion Algorithm for Nuclear Magnetic Resonance (NMR) Data

● **SKILLS**

Programming (PHP Python JavaScript HTML5 CSS3 SCSSSASSLess) | Creating web applications using Angular, Node.js | operate 3D computer graphics software | design application interfaces | Client-side Interactive Map (leaflet.js) | Python (NumPy, TensorFlow, Keras, gdal, matplotlib, pandas, rasterio, ogr, panel) | Git/Github, Docker, Gitlab | GIS: Esri ArcMap, ArcGIS Pro, ArgGIS Server, QGIS, Geoserver, Mapserver | linux shell scripting | Linux | topography

● **LANGUAGE SKILLS**

Mother tongue(s): **ITALIAN**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
FRENCH	B1	B1	B1	B1	B1