



Europass Curriculum Vitae

Personal information

Name **Angelica Bianconi**
E-mail angelica.bianconi@cmcc.it
Nationality Italian
Date of birth 15/10/1995
Gender Female



Work experience

Dates	03/2022 → 11/2022
Occupation or position held	Research fellow
Main activities and responsibilities	<p>The research activities are carried out within: H2020 MaCoBioS (Marine Coastal Ecosystems Biodiversity and Services in a Changing World, https://macobios.eu) project. It aims at ensuring an efficient and integrated management and conservation strategies for European marine coastal ecosystems to face climate change. Research activities are related to the: i) development of a machine learning model for the evaluation of cumulative impacts resulting from the complex interplay among human-made and climate related pressures affecting the Marine Coastal Ecosystems state and capacity services; ii) design of a nature based solutions (NbS) suitability model, exploiting Multi Criteria Decision Analysis (MCDA) techniques and deep learning, to identify suitable areas for the implementation of NbS in marine coastal environments; iii) contribution to project report and scientific publications.</p>
Name and address of employer	CMCC@Ca' Foscari Euro-Mediterranean Center on Climate Change Raas Division
Type of business or sector	Research activities, climate change vulnerability and risk assessment.
Dates	07/2021 → 01/2022
Occupation or position held	Student trainee
Main activities and responsibilities	<p>Design and application of Machine Learning models for the analysis of cumulative impacts induced by climate change (e.g. rising sea temperatures, sea level rise) and anthropogenic pressures (e.g., coastal development, shipping traffic), acting in concert on marine coastal ecosystems (Thesis work). Knowledge of new tools (GIS) for the analysis of spatio-temporal data, and methodologies and frameworks for environmental and ecological risk analysis. Activities are part of the H2020 MaCoBioS, project aimed at supporting the definition of integrated management and effective conservation of European marine coastal ecosystems to tackle climate change.</p>
Name and address of employer	CMCC@Ca' Foscari Euro-Mediterranean Center on Climate Change Raas Division
Type of business or sector	Research activities, climate change vulnerability and risk assessment.
Dates	02/2021 → 05/2021
Occupation or position held	Student trainee

Main activities and responsibilities	The activities carried out concern the design and implementation of a Python library that programmatically allows you to generate XML files. These files follow the BpSim standard and have been used within discrete event simulators that support this standard, which simulate business processes represented with BPMN models.
Name and address of employer	Esteco SpA – Trieste, Italy
Type of business or sector	Software provider, numerical optimization and simulation data management
Education and training	
Dates	12/2022 →
Title of qualification awarded	PhD in Sustainable Development and Climate Change
Principal subjects/occupational skills covered	The research project concerns the development of deep learning models to investigate MCEs resilience to multi-risk scenarios, and the NbS potential and effectiveness in sustaining a proper ESs flow, including regulating and supporting services to human well-being
Name and type of organisation providing education and training	Scuola Universitaria Superiore Pavia IUSS & University Ca' Foscari of Venice; CMCC@Ca'Foscari Euro-Mediterranean Center on Climate Change RAAS Division
Dates	09/2019 → 02/2022
Title of qualification awarded	Master's degree in Computer Science (Thesis score: 100/110)
Principal subjects/occupational skills covered	The field of study of the academic career mainly concerns Artificial Intelligence, in particular Machine Learning and Deep Learning. Thesis: "Multi-risk assessment in Mediterranean Sea using Random Forest" Supervisor: Prof. Lamberto Ballan
Name and type of organisation providing education and training	University of Padua, Department of Mathematics
Dates	18-19-20/11/2020
Title of qualification awarded	Attendance to "Start-Up Lab" course
Principal subjects/occupational skills covered	The "Start-Up Lab" course introduces the world of start-up, providing the following skills: i) identifying vectors of innovation and understanding their potential for impact on the business; ii) analysing the role of investors and lenders in the main stages of start up
Name and type of organisation providing education and training	Start Cube – Galileo innovation district
Dates	07/2020
Title of qualification awarded	Attendance to Copernicus Marine Training Courses & Workshops
Principal subjects/occupational skills covered	Participant in the online Copernicus Marine Training sessions that have been designed to train existing as well as new Copernicus Marine Service users. The audience learned about the use of the Copernicus Marine Service products and services and their possible applications.
Name and type of organisation providing education and training	Copernicus Marine Service
Dates	09/2014 → 07/2019
Title of qualification awarded	Bachelor's degree in Computer Science and Technologies (Thesis score: 98/110)

Principal subjects/occupational skills covered
 Acquired knowledge regarding Programming (procedural and object-oriented), Operating Systems, Databases and Networks
 Thesis: "Use of Neural Networks in fault diagnosis in internal combustion engines"
 Supervisor: Prof. Francesco Pierrri

Name and type of organisation providing education and training
 University of Basilicata, Department of Mathematics, Informatics and Economy

Personal skills and competences

Mother tongue(s)

Self-assessment

European level (*)

English

ITALIAN

Understanding		Speaking		Writing	
Listening	Reading	Spoken interaction	Spoken production		
B2	B2	B2	B2	B2	

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences

Determination - Responsibility - Curiosity - Resistance to stress - Empathy

Organisational skills and competences

Time management – Team spirit - Organization

Job related skills

Good knowledge of methodologies and frameworks for environmental risk analysis with a particular focus on application related to climate change/ecological/marine and coastal ecosystems risk-assessment

Computer skills and competences

Microsoft Office - ML and DL Libraries: **Sklearn, Keras, TensorFlow, PyTorch, PyTorch Geometric** – Geospatial Data Analysis Libraries: **GeoPandas, Shapely, Xarray, Rasterio, Rioxarray** - Excellent knowledge of **Python** - Intermediate knowledge of **Java** - Basic knowledge of **C/C++/Matlab** - Good command of **GIS tools** – Intermediate knowledge of **R** software - Basic knowledge of **Apache Spark**

Driving licence

Category B2

Additional information

Organisation of training activities within the H2020 MaCoBioS project

Instructor within the technical training regarding the implementation of a Machine Learning model in Google Colaboratory. The training was carried out in the frame of the **H2020 MaCoBioS** project with the aim of transferring knowledge and skills to project partners on the preprocessing of spatio-temporal data and on the development and implementation of a Random Forest model for risk-based cumulative impacts assessment in marine coastal ecosystems.

Organisation of internal training sessions at CMCC@Ca'Foscari

Organiser and instructor of training sessions on manipulating spatial data with Python. The course was devoted to members of the CMCC@Ca'Foscari research team with the aim of sharing technical knowledge within research team members. In particular, the activities concerned: i) getting knowledge on spatial data under different formats (i.e., netCDF, raster, vector), exploring metadata, performing temporal and spatial data basic manipulations, exporting data and calculating several statistics; ii) accessing Copernicus data; iii) exploring python modules for manipulating geospatial data.

Annexes

Annex 1: List of publications

ANNEX 1

LIST OF PUBLICATIONS

Title: **BPSimpy: A Python Library for WfMC-Standard Process-Simulation Specifications**

Authors: Claudia Fracca, **Angelica Bianconi**, Francesca Meneghello, Massimiliano de Leoni, Fabio Asnicar and Alessandro Turco

Presented at the Business Process Management Conferences 2021 (BPM2021 Demo & Resources track)

<http://hdl.handle.net/11577/3396277>

Proceedings of International conferences:

Evaluating the risk of cumulative impacts in the Mediterranean Sea using a Random Forest model

Angelica Bianconi, Elisa Furlan, Christian Simeoni, Vuong Pham, Sebastiano Vascon, Andrea Critto, Antonio Marcomini. Submitted as oral presentation to the **EGU 23**: Intelligent systems for Earth, Environmental and Planetary Sciences (Methods, Models and Applications), 23-28 April 2023 Vienna, Austria.

Risk-based cumulative impacts assessment on seagrasses in the Mediterranean Sea under a changing climate: a Machine Learning application

Christian Simeoni, Elisa Furlan, **Angelica Bianconi**, Vuong Pham, Sebastiano Vascon, Andrea Critto, Antonio Marcomini. Submitted as oral presentation to the **ECSA 59**: Using the best scientific knowledge for the sustainable management of estuaries and coastal seas, 5-8 September 2022 Kursaal Congress Centre, San Sebastian, Spain.

Exploiting machine-learning for risk-based cumulative impacts assessment in marine coastal ecosystems: the Mediterranean ecoregion case study

Elisa Furlan, Christian Simeoni, **Angelica Bianconi**, Vuong Pham, Sebastiano Vascon, Andrea Critto, Antonio Marcomini. Submitted as poster presentation to the **ICES ASC 2022**: ICES Annual Science Conference 2022, 19–22 September 2022 Aviva Stadium, Dublin, Ireland

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