PERSONAL INFORMATION

Olinda Rufo

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Sex Female | Date of birth 14/06/1996 | Nationality Mozambique

WORK EXPERIENCE

01 January 2023 – Present

Research Fellow

Ca' Foscari University of Venice – Venice, Italy

Euro-Mediterranean Center on Climate Change – Venice, Italy

▪ Develop a set of hazard, vulnerability and exposure indicators for the application of machine learning models in the multi-risk assessment in the coastal area of the Veneto region under the frame of Interreg Italy-Croatia ADRIACLIM project. The results will support the decision-making process by identifying the drivers of risk and predict potential risk under future uncertainties

Business or sector Education and Research

Mar 2022 – May 2022

Internship with Photogrammetry and GIS

Archetipo s.r.l– Padova, Italy

▪ Assed different images of land use areas (solar panel, urban, agricultural areas, etc.) in Padova, Italy of images that were captured by different sensors of drones (Multispectral, Hyperspectral, Thermal). The assessment involved pre-processing of the data with Agisoft Metashape software to produce Digital elevated models and aligned. The use of QGIS platforms was used in simultaneous. The company specializes in the elaboration of high-quality imagery to aid various institutions perform appropriate decisions to improve the urban quality, ecosystem manage and sustainable development.

Business or sector Software Company

Sep 2019 – Dec 2020

GIS Specialist and Science Coordinator

Ocean Revolution/ Bitonga Divers, Mozambique

▪ Worked alongside with community leaders, fishers' community and the local population to support the sustainable management of marine resources in the bay of Inhambane. The project involved various collaborations with national universities,

Business or sector Non-Governmental Organization in Environmental Conservation

Jan 2017 – Dec 2018

School Coordinator and School Teacher

Starkids International School – Mozambique

▪ Was responsible for the management of school activities and planning. Cooorinating creative fun eduvational activities and teacher and parents consultations.

▪ Taughjt English, math and science from grade 4-9.

Business or sector Education

Jun 2017 – Oct 2019

Volunteer-Beach Clean-up

Quelimane – Mozambique

▪ Maintained efficient running of the program by creating a social media platform for the movement and inviting University students to join. Collaborated with Professors and University Administration and promoted the replantation of 300 Avicenna marina seedlings in the Estuary of Quelimane.

Business or sector Education and Research

EDUCATION AND TRAINING

Sep 2020 – Jul 2022

Erasmus Mundus Joint Master's Degree in Water and Coastal Management
EQF Level 7

University of Bologna – Italy, University of Cadiz – Spain, University of Algarve (Portugal)
Date obtained: 12/07/2022
Final grade: 100/110

▪ The WACOMA programme links natural sciences and societal challenges, focusing on biology, geology, management, law, and economics, thus being both multidisciplinary and interdisciplinary. It is specifically addressed to water and coastal hazards and risks, and their interrelations with global changes and use of resources. Consistent with the precepts of management sciences, it also concerns mitigation and adaptation to changes and it deals with the relevant aspects of a sustainable green and blue economy.

The master's thesis discussed approaches to quantifying the biomass distribution in a salt marsh of the Venice lagoon. The analyses also focused on the amount of organic matter stored in soils. Hyperspectral data collected through a UAV system were used to compute vegetation indices to retrieve possible correlations to above-ground biomass and below-ground biomass. ENVI software was used to elaborate the computations.

▪ Thesis title: Characterization of vegetation patterns in a Venice lagoon saltmarsh from drone-based hyperspectral remote sensing
▪ Supervisors: Prof. Sonia Silvestri and Tegan Blount

Aug 2014 – Jul 2018

Degree of Oceanography

Eduardo Mondlane University. School of Marine and Coastal Sciences– Mozambique
Date obtained: 05/08/2019
Final grade: 12/20

The degree focuses on the study of the ocean and its ecosystem. The various processes that shape the ocean, including currents, waves, tides and the interactions between the ocean and the atmosphere. In this degree, obtained knowledge of coursework in the subjects such as:

- Physical Oceanography
- Marine Biological
- Ocean Chemical
- Marine Geology

The thesis evaluated the two different vegetation indexes in the city of Beira, Mozambique for a period of ten years. The spectral indices were calculated using the spectral bands of TM-Landsat5 and OLI-Landsat8 sensors.

Aug 2014 – Jul 2018

Global Undergraduate Exchange Program (oceanography)

Humboldt State University– United States of America
Date obtained: 15/12/2016
Final grade: Certificate of participation

From this academic time abroad, I gained field experience in appropriate sampling, laboratory, and computer techniques. The experience allowed me to integrated conceptual and technical knowledge to address complex interdisciplinary problems in oceanography.

ADDITIONAL INFORMATION

Projects	▪ Climate change information, monitoring and management tools for adaptation strategies in Adriatic coastal areas (ADRIACLIM). Funded by Interreg Italy – Croatia. **Research Fellow**. 2020 – 2022.
	▪ Coupled ecological-geomorphological response of coastal wetlands to environmental change-NSF project (NSF, 2021) (**Masters thesis was a chapter of this ongoing project**)

Honours and awards	▪ *Erasmus Mundus Scholarship* funded by European Union, to study Erasmus Mundus Joint Master Program on Water and Coastal Management (2020 – 2022).
	▪ *Global Undergraduate Exchange Program* funded by the U.S. Department of State Administered by World Learning (2016).

PERSONAL SKILLS

Mother tongue	Portuguese

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	B2	B2	B2
	IELTS 7.0				
Italian	A2	A2	A2	A2	A2
Spanish	A2	A2	A2	A2	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Computer skills	▪ Good command of Microsoft office tools (Word, Excel and Powerpoint)
	▪ Good command of Geographic Information System (QGIS, ArcGIS, Google Earth)
	▪ Good command of remote sensing platforms (SNAP, Google Earth Engine)
	▪ Good command of programming languages (Python)
	▪ Good command in online conferencing platforms (MS Teams, Zoom, Google Meets, etc.)

Annexes	Annex 1. List of publications

ANNEX 1. LIST OF PUBLICATIONS

PEER-REVIEWIE JOURNALS

Silvestri S, Pamela R, Portillo C, **Rufo O**, Assiri M, Avendaño S, et al. Saltmarsh vegetation biomass distribution from drones: a case study. Available from: https://doi.org/10.5194/egusphere-egu22-2025 (On-going)

CONFERENCE PROCEEDINGS

Dal Barco M.K., Ferrario D.M., Nguyen D.N., Maraschini M., Rufo O., Fonseca H., Torresan S., Vascon S., Critto A. Rischio costiero e intelligenza artificiale: uno strumento utile per l'adattamento ai cambiamenti climatici nella regione Veneto. Accepted as oral presentation at the AdriaClim Workshop "Dai risultati del progetto AdriaClim verso la strategia regionale di adattamento ai cambiamenti climatici". Venezia, 8 June 2023

Dal Barco M.K., Ferrario D.M., Nguyen D.N., Maraschini M., Rufo O., Fonseca H., Torresan S., Vascon S., Critto A., Marcomini A. A Machine Learning approach to evaluate climate risk in the Veneto coastal area. Accepted as oral

presentation at the CMCC annual meeting 2023. Ugento, Lecce. 29-31 May 2023.

Silvestri Sonia, Ruth Cuenca, Portillo C ,**Rufo Olinda**, Assiri Marco, et al. "Saltmarsh vegetation biomass distribution from drones: a case study: A case study". In *EGU General Assembly 2022.*

Venice, 30/05/2023