



## Igor Ruiz Atake

**Date of birth:** 09/10/1992 | **Nationality:** Brazilian | **Email address:**

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### WORK EXPERIENCE

01/07/2023 – CURRENT Lecce, Italy

**DATA SCIENTIST / JUNIOR RESEARCHER** CMCC - CENTRO EURO MEDITERRANEO SUI CAMBIAMENTI CLIMATICI

- Data Scientist specializing in oil spill simulations and water quality.
- Extensive involvement in European Union research projects related to environmental science.
- Primary responsibility for the development and maintenance of the current oil spill simulation system, Medslik-II.

**Address** Marco Biaggi, 2, 73100, Lecce, Italy

01/12/2022 – 16/06/2023 Sao Paulo, Brazil

**TECH LEAD MACHINE LEARNING ENGINEER** NESTLE

MLOps culture leadership in the context of data science projects at Nestlé. Involvement in Brazil and Latin America's market, as well as initiatives from other teams in Europe.

- Development of a Data Science Template with Data Science Operational Architecture (MLOps)
- Implementation of Continuous Integration (CI) and Continuous Delivery (CD), for Data Science projects - Support and knowledge transfer of tools and culture of processes optimized for data science
- Project and People management

01/04/2022 – 30/11/2022 Sao Paulo, Brazil

**DATA SCIENCE SPECIALIST** NESTLE

Scaling and optimizing Data Science through MLOps techniques, while helping with specific initiatives according to demand from business units.

- MLFlow
- Data Factory
- DevOPS Pipelines)

15/03/2021 – 31/03/2022 Sao Paulo, Brazil

**DATA SCIENTIST** NESTLE

Modeling development for several sectors within the company, especially through linear regressions and time series.

- Sklearn
- XGBoost
- Azure
- Databricks

01/05/2020 – 05/03/2021 Sao Paulo, Brazil

**GEOSCIENCES ANALYST II** TETRA TECH

Period focused on projects related to Oceanography, Modeling, Analysis of Dispersion and Treatment of Effluents in Inland, Brackish and Salty Waters, in compliance with CONAMA Resolutions 357/05 and 430/11.

Projects:

- Elaboration of Code Repository to Standardize and accelerate the scalability of projects, using open access software
- Modeling of Effluent Plumes
- Near Field
- Far Field
- Meteorological analyzes using private and public datasets for national and international contexts
- Coordination and preparation of technical reports indicating results achieved through technical development

Tools:

- CORMIX
- Delft3D
- ArcGIS/ QGIS / Global Mapper
- Python: Pandas, Geopandas, Xarray
- Linux
- MS Office

01/06/2016 – 30/04/2020 Sao Paulo, Brazil

### **GEOSCIENCES ANALYST** TETRA TECH

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Work on the sector of Hydraulic Engineering, Oceanography and Environmental Quality.

Projects:

- Modeling extreme event precipitation and flooding scenarios.
- Modeling of Water Supply and Sewage Collection Systems
- Modeling of Effluent Plumes
- Near Field
- Far Field
- Meteorological analyzes using private and public datasets for national and international contexts.

Tools:

- AutoCAD
- CORMIX
- Delft3D
- ArcGIS/ QGIS / Global Mapper
- Python: Pandas, Geopandas, Xarray
- Linux
- MS Office

17/11/2014 – 30/05/2016 Sao Paulo, Brazil

### **INTERNSHIP** TETRA TECH

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Intern assisting in the elaboration of maps, oil spill modeling results using OSCAR software (Oil Spill Contingency and Response - SINTEF).

- Geoprocessing
- ArcGIS
- Oil Spill Modeling
- Assistance in the preparation of technical reports

## **EDUCATION AND TRAINING**

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01/03/2019 – 09/05/2022 Sao Paulo, Brazil

### **MSC IN ENVIRONMENTAL SCIENCES** Universidade de Sao Paulo

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- Hydrodynamic Modeling techniques (Delft3D-Flow) were implemented, together with Water Quality Modeling (Delft3D-WAQ), in order to investigate whether the worsening of water quality impacts the Willingness to Pay for residences in areas of better bathing. With the help of Machine Learning techniques, it is inferred that bathing is not a determining factor for the increase or decrease in the price of a property.
- Participation in the III Interdisciplinary Symposium on Environmental Science (SICAM), in 2021, presenting the paper "ASSESSMENT OF THE WATER QUALITY AT THE OUTLET OF THE ACARAÚ RIVER, IN THE ITAGUÁ BAY, UBATUBA-SP".

Participation as rapporteur in the III SICAM, for WG 9: WG 9 Modeling in Changes Climate and Oceanography.

**Website** [www5.usp.br](http://www5.usp.br) |

**Field of study** Environmental Sciences, Environmental Economy, Hydrodynamic Modeling, Water Quality Modeling |

**Final grade** A |

**Thesis** Coastal Water Quality in the Bay of Ubatuba-SP: Integration between Numerical Modeling and Econometric Methods for Diagnosis based on Ecosystem Services

01/03/2010 – 15/12/2015 Sao Paulo, Brazil

**BSC IN OCEANOGRAPHY** Universidade de Sao Paulo

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- Participation in the Company IOJr (2010 - 2011)
- Undergraduate Research (2012): Specific Composition and Distribution of Mesopelagic Ichthyofauna in the Abrolhos Bank, Brazil
- Graduation Work (2015): Characterization of the habitat of the demersal ichthyofauna of the internal platform of the region of Caraguatatuba, São Paulo-SP.
- In this work, geophysical and geomorphological mapping techniques of the marine substrate of the shallow platform were analyzed together with the distribution of demersal ichthyofauna collected through bottom trawls, in order to verify if there is a direct correlation between the individuals collected and the mapped habitat. Through a non-parametric analysis (Non-MDS), it is inferred that depth, temperature and granularity were the most relevant variables. However, as the study focused on only one station, more collections should be performed in order to validate the hypothesis.

**Website** [www5.usp.br](http://www5.usp.br) | **Field of study** Oceanography | **Final grade** 7.1 |

**Thesis** Characterization of the habitat of the demersal ichthyofauna of the internal platform of the region of Caraguatatuba, São Paulo-SP.

20/09/2013 – 01/09/2014 Southampton, United Kingdom

**EXCHANGE STUDENT** University of Southampton

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Exchange student in the Bachelor of Oceanography course. Scholarship holder of the Science without Borders Program.

- Internship at the DeepSeas Group, with the objective of helping to map the geohabitats of the Celtic Sea, through the use of images and geophysics collected by an AUV (Autonomous Underwater Vehicle). The work consisted of identifying and measuring numerous species of demersal organisms with specialized measurement software for this task.

**Website** <https://www.southampton.ac.uk/> | **Field of study** Oceanography

## ● LANGUAGE SKILLS

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Mother tongue(s): **PORTUGUESE**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C2	C2	C2	C2	C2
<b>ITALIAN</b>	A1	A1	A1	A1	A1
<b>SPANISH</b>	B2	C1	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## ● **DIGITAL SKILLS**

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CI CD | Databricks

### **Cloud Computing**

Experience in MATLAB, python, and R | Microsoft Office | Portal Azure | Data Factory

### **Programming Languages**

### **Communication and Reporting Softwares**

Microsoft Word | Databricks/Pyspark | Microsoft Powerpoint | Git & Githubs