Denise Fukai

Data Scientist and Oceanographer

Last update: August 3, 2023

Up-to-date version of CV is available at
https://denisefukai.github.io/curriculum_vitae

Residence	Serra/ES - BR
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Data scientist and oceanographer with broader experience applied to environmental data and climate science. Python and tech enthusiast.

Education and Training

2012/1 - 2019/2
B.S. in **Oceanography**
UFES - Federal University of Espirito Santo
Vitoria, Brazil

2014/2 - 2015/1
Undergraduate Exchange in **Oceanography**
UNSW - University of New South Wales
Sydney, Australia

2019/1 - present
M.S. in **Meteorology**
UFRJ - Federal University of Rio de Janeiro
Rio de Janeiro, Brazil

Professional Experience

Oct/2022 - present

Vortex Mundus

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vortexmundus.com | Rio de Janeiro,RJ
Wave spectral data analysis focusing on evaluation of data to support offshore navigation
operations. Development of new methodologies, preprocessing and evaluation of data
used by the clients.
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python | data analysis | data visualisation | report writing

2019 - 2022

MOVAR Project

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Climate model data analysis: retrieving, transforming, regridding global multidimensional data,
in order to analyse the South Atlantic Ocean water temperature and salinity sctructure
and projected changes under a warming scenario.
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data analysis | python | data acquisition | model data analysis

Jul - Dec 2018

EGS Brasil Internship

EGS Survey Brasil – Survey solutions for marine projects
Activity: Meteoceanographic data processing (wave and current profilers & CTD; meteorological station data), and elaboration of technical reports

python | wave analysis | environmental monitoring | report writing

2017 - 2022

CAPES Beach Morphodynamic Response of the Southeast of Brazil to the Sea Level Rise and Extremes Meteo-oceanographic Events until 2100

Research Collaborator (Data Analyst Support)
Project: This 4 years project aims to understand the short and long term local impacts and projections for the southeast Brazilian coast due to climate change. The analysis focus on extreme wave events, sea level and hydrodynamical changes and combined coastal inundation processes.
CAPES project registration no: 88887.145855/2017.00

data science | wave analysis | climate projection | coastal processes

Dec/2014 - Feb/2015

ARCCSS Summer Research Scholarship

Project: “Ocean–atmosphere interaction analysis through the first version of recharge oscillator model”
ARCCSS / IMAS – Australia
Supervisor: Eric Oliver, Neil Holbrook, Catia Domingues, James Risbey

ENSO | mode variability

Scholarships, courses and others

2012 - 2013

Young Talents in Science Program

UFES – Coordination for the Improvement of Higher Education (Capes) – Brazil
Project: Numerical Modelling Development using ADCIRC
Supervisor: Julio Tomaz Aquije Chacaltana

matlab | adcirc | coastal modelling

Feb/2014 - Jun/2015

Brazilian Scientific Mobility Program: Science without Borders

National Council for Research and Development (CNPq) – Brazil
Exchange scholarship: 6–months language course and one year of undergraduate course at UNSW

english

2016 - 2017

Oceanografia para Todos (Oceanography for Everyone)

Co-funder of an extension group to disseminate oceanography to the general public. The focus was on the translation of science and research projects through public communication. The project has now been implemented as a long term Extension Programme at University (UFES) by current members.

community outreach | extension project

14-21 Sep 2019

Bio-Optical Oceanography Course

CEBIMar | USP – São Sebastião
Fundamentals of marine optics, tools and applied instrumentation to quantify ocean properties, especially biological variables. Field planning, data collection, operation of instruments, processing and interpretation of collected data.

bio-optics | instrumentation | data acquisition | data analysis

Publication, Posters & Presentations

EGUCHI et al., 2019

EGUCHI, B. M. M.; FUKAI, D. T.; BONFIM, L. N. S. KLUMB-OLIVEIRA, L. A.
Setorização das alturas de ondas ao longo da costa do estado do Espírito Santo.
XIII OMARSAT. 2019.

(Significant wave height clustering for the coast of Espírito Santo)

conference poster

KLUMB-OLIVEIRA et al., 2019

KLUMB-OLIVEIRA, L. A.; SOUZA, C. R. G.; FUKAI, D. T.; ALBINO, J.; EGUCHI, B. M. M.
Avaliação do Comportamento de Ressacas Marinhas om Base em Reanálise de Ondas e Observações in loco na Costa Sudeste do Brasil.
XIII OMARSAT. 2019
(Evaluation of extreme wave events based on reanalysis products and in loco wave data at the Southeast Brazilian Coa

conference presentation

KLUMB-OLIVEIRA & FUKAI, 2020

KLUMB-OLIVEIRA, L. A.; FUKAI, D. T.
A reanálise e sua utilização como ferramenta para o gerenciamento.
In: MUEHE, D.; LINS-DE-BARROS, F. M.; PINHEIRO, L. (orgs.) Geografia Marinha: oceanos e costas na perspectiva de geó
Rio de Janeiro: PGGM, 2020. p. 154-169. ISBN 978-65-992571-0-0
(Reanalysis as a tool for coastal management)

book chapter

FUKAI et al., 2021

FUKAI D, OAQUIM A and CIRANO M (2021).
How Might the Ocean Change in the Future?.
Front. Young Minds. 9:700622. doi: 10.3389/frym.2021.700622

paper | community outreach

II Early Career Symposium on Marine Biogeochemical Modelling

7–8 Dec 2021
CMIP6 South Atlantic water masses identification and distribution by dynamic methods.

presentation

Certifications

- CCNAv7: Introduction to Networks - Jun, 2022
- Cybersecurity Essentials - Mar, 2022
- FIAP Nanocourse - Python - Nov, 2022
- + certificates

Additional experience

- Research cruise PROTRINDADE/MOVAR expedition - 18 - 27 Apr, 2019 | 28 Jul - 12 Aug, 2022

Python

Data Analysis

SQL

GitHub

Research

OpenAI