

## CONTACT

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<http://upwelling.stanford.edu/>

## EDUCATION

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<i>Present-</i>	University of Georgia, Athens, GA PhD in Engineering with emphasis in Environment and Water
<i>2016-2018</i>	University of Georgia, Athens, GA MSc in Marine Sciences
<i>2010-2016</i>	Universidade Federal do Maranhao (Federal University of Maranhao), Sao Luis, MA, Brazil B.S. in Oceanography
<i>2012-2013</i>	Memorial University/Marine Institute, St. John's, NL, Canada Visiting Undergraduate Student

## RESEARCH INTERESTS

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- Regional Numerical Modeling
- Global Numerical Modeling
- Data Analysis
- Nearshore processes
- Climate Change
- Ocean Acidification

## HONORS

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<i>August 2019-</i>	<b>NSF Graduate Research Fellow</b> , Department of Engineering, Univ. of Georgia
<i>August 2016-2018</i>	<b>NSF Graduate Research Fellow</b> , Department of Marine Sciences, Univ. of Georgia Modeling exposure time of abalone population under present and future ocean acidification conditions in an upwelling region.
<i>Jan 2014 - Jun 2016</i>	<b>Coastal Water Quality and Marine Sediment Program Scholarship Award (title translated)</b> , Department of Oceanography and Limnology, Federal Univ. of Maranhao Modeling the sediment transport dynamics of Sao Marcos Bay - Sao Luis - Maranhao - Brazil
<i>Sep 2012 - Dec 2013</i>	<b>Scholarship Award by Brazil-Canada (CBIE)</b> Science Without Borders Program

## INTERNSHIPS

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2014 - 2016	<b>Coastal Circulation on the Internal Continental Shelf of the Brazilian Equatorial Margin using ROMS</b> Advisor: Dr. Audálio Rebelo Torres Junior
144 h	<b>Scientific training to run the Regional Ocean Modeling System (ROMS) and participation in seminars in physical oceanography and meteorology fields</b> Advisor: Dr. Luciano Ponzzi Pezzi
390 h	<b>Modeling potential Energy in Internal Gravity Waves using python</b> Advisor: Dr. James R. Munroe

## PUBLICATIONS

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Fagundes, M. *et al.* **Downscaling global ocean climate models improves estimates of exposure regimes in coastal environments**, *Nature Scientific Reports*, 2020. <https://www.nature.com/articles/s41598-020-71169-6>

## CONFERENCE PRESENTATIONS

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Mar 14 <sup>th</sup> – 18 <sup>th</sup> , 2018	<b>The Eventual Presence of Freshwater of Amazonas River Over the Continental Shelf of the State of Maranhão – Brazil</b> , Torres Junior, A.R., Fagundes, M., da Silva Dias, F.J., de Castro, A.C.L., Santos, E.D.V., Soares, R. A., Neta, R.N.F.C. Oral Presentation at 14th International Conference of Computational Methods in Science and Engineering – ICCMSE 2018
Feb. 11 <sup>th</sup> – 16 <sup>th</sup> , 2018	<b>Investigating hypoxia in a Climate Change scenario in a region of upwelling.</b> Fagundes, M., Omidvar, S., Woodson, C.B. Poster at 2018 Ocean Sciences Meeting
Feb. 11 <sup>th</sup> – 16 <sup>th</sup> , 2018	<b>THE GENERATION OF INTERNAL WAVES BY VARIABLE WIND STRESS AND TIDAL FLOW INTERACTIONS IN THE NEARSHORE.</b> Omidvar, S., Fagundes, M., Woodson, C.B. Oral Presentation at 2018 Ocean Sciences Meeting
Oct 06 <sup>th</sup> – 09 <sup>th</sup> , 2015	<b>Superficial Circulation on the Equatorial Atlantic in periods of extremes EL-NINO and LA-NINA: Preliminary results of a Regional Model.</b> Fagundes, M., Campos, P.C., Parise, C.K., Pezzi, L.P., Junior, A.R.T., Sutil, U.A., Gouveia, M.B. poster at XI OMARSAT (Symposium of waves, tides, oceanic engineering and satellite oceanography (title translated))
Oct 25 <sup>th</sup> – 29 <sup>th</sup> , 2014	<b>Wave Tides propagation at Itapecuru's river basin: a study.</b> Soares, R., Fagundes, M., Torres, A.R.T., Quadros, E., Azevedo, J., Castro, A.C., Campos, G., poster at VI Brazilian Congress on Oceanography (title translated)

## COURSES RELATED

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- Marine Sciences Department
  - Estuarine and Coastal Physical Oceanography (Fall 2017)
  - General Physical Oceanography (Spring 2017)
- Engineering Department
  - Advanced Fluid Mechanics (Spring 2018)
  - Transport and Mixing in Natural Flows (Spring 2017)
  - Computational Engineering (Fall 2016)
- Mathematics Department
  - Climate and Mathematics (Fall 2016)
- Geology Department
  - Data Analysis for Geoscientists (Fall 2017)
  - Modeling Earth's Climate System (Spring 2021)
- Statistics Department

## SHORT TERM COURSES

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2021	<b>2021 CESM Tutorial</b> National Center for Atmospheric Research (NCAR)
Aug26 <sup>th</sup> – 30 <sup>th</sup> , 2019	<b>OCEANHACKWEEK 2019</b> University of Washington
Jan19 <sup>th</sup> – 23 <sup>th</sup> , 2015	<b>LINUX for High Performance Computing: an Introduction</b> Hours: 7.5 h National Laboratory of Scientific Computation (LNCC)
Jan 19 <sup>th</sup> – 23 <sup>th</sup> , 2015	<b>FORTTRAN for Computational Modeling</b> Hours: 7.5 h National Laboratory of Scientific Computation (LNCC)

## COMPUTER SKILLS

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Basic Knowledge:	Ncview, Cloud Computing, Machine Learning
Intermediate Knowledge:	CLIMATE DATA OPERATORS (CDO), FORTRAN, $\text{\LaTeX}$
Advanced Knowledge:	R, LINUX/UNIX, bash, MATLAB
Proficient Knowledge:	PYTHON
Numerical Model:	Coupled-Ocean-Atmosphere-Wave-Sediment Transport (COAWST) Modeling System

Community Earth System Model (CESM)

## LANGUAGES

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PORTUGUESE:	Mothertongue
ENGLISH:	Full Professional
FRENCH:	Basic Knowledge

## OTHERS

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**Practical Guide to build and set up COAWST in the Kerana Cluster**, (title translated)

Author: M.S Ueslei Adriano Sutil. Contributed helping with Python codes.

## INTERESTS AND ACTIVITIES

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Hiking, Fishkeeping

Volleyball coach, Travelling (exploring places on the West coast nowadays)

## REFERENCES

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Upon request.