

Ruben Esteche Araújo

Curriculum Vitae

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EDUCATION

Federal University of Pernambuco

Master of Science in Physics, Advisor: Eduardo O. Dias

– CAPES Academic Excellence Program Fellowship

Recife, PE

May 2021–Present

Federal University of Pernambuco

Bachelor of Science in Physics, Advisor: Wilson Barros

– Undergrad Project: Fluid Interfaces: Curvature relations and Euler elastics.

Recife, PE

2015–2020

Descomplica Cursos Livres S.A.

Postgraduation in data science

Rio de Janeiro, RJ

July 2022–Present

WORK EXPERIENCE

- **Data Scientist and Machine Learning Researcher** at DELL Lead July 2022 - Present
 - Researcher at WAL project (*Website Accessibility Layer*) - responsible for machine learning engineering with NLP models and creating data visualizations.
 - Worked on all software development stages of a python APIrest with machine learning, Docker, Jenkins and several other tools.
- **Teaching Assistant** at Federal University of Pernambuco July –December 2019
 - Physics for Computer Science (FI582) teacher: Prof. Fernando Luis de Araujo Machado*

EXTRACURRICULAR EXPERIENCE

CODATA-RDA School of Research Data Science

ICTP South American Institute for Fundamental Research (ICTP-SAIFR)

– Winter School as specialization for Data Analysis Applied to Research

– <https://www.ictp-saifr.org/codata-rda22/>

São Paulo, SP

May 2022

ITA Physics Workshop

Technological Institute of Aeronautics (ITA)

– Poster presentation on my current M.Sc. research

– <https://www.efita.ita.br/>

São Paulo, SP

July 2021

OSA & SPIE Student Chapters

The International Society of optics and photonics event

– Mini-course: Quantum Information & Computation foundations

– <https://www.chaptersrecife.org/>

Recife, PE

July 2020

PET - Tutorial Education Program

UFC - Federal University of Ceará program

– Mini-course: Convolutional Neural networks with Tensorflow

– <https://prograd.ufc.br/pt/programas-e-acoes/pet-ufc-programa-de-educacao-tutorial-universidade-federal-do-ceara/>

Fortaleza, CE

July 2020

FELLOWSHIP

- Graduate Fellowship, CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior), Brazil
(88887.623604/2021-00) May 2021–2023

INTERESTS

- **Quantum Entanglement** Causality relations in superposed systems
- **Quantum computing and information** algorithms and experimental work, Quantum Machine Learning
- **Data Science and Statistical Methods** Python, C, Mathematica
- **Back/Front-End programming** C++, HTML, JavaScript

LANGUAGES

- **Portuguese:** Native speaker
- **English:** Fluent
- **French:** Intermediary (Course Delf certificate B1)
- **Spanish:** Intermediary

PROJECTS

- M.Sc. Research - A Space-Time symmetrical extension of quantum mechanics (2021–Current) From the construction made by DIAS, E. O.; PARISIO, F. Space-time-symmetric extension of nonrelativistic quantum mechanics. Physical Review A, APS, v. 95, no. 3, p. 032133, 2017, we developed numerical and analytical modeling as well as physical interpretations for different experimental conditions of time of arrival and tunneling time in a quantum regime.
Collaborators: Prof. Eduardo Olímpio Dias (Federal University of Pernambuco), Ricardo Ximenes (Physics Ph.D. Student, UW-Madison)
- Undergraduate Research - Fluid Interfaces: Curvature relations and Euler elastics. (2016–2017) We revisited Euler's studies of elastic in an attempt to analytically describe the curvature relationships between a two immiscible fluid system with different boundary conditions and viscosity. We conducted experiments in this system and the project was a great opportunity to learn about the experimental routine in laboratory.
Collaborator: Prof. Wilson Barros Júnior (Federal University of Pernambuco)

REFERENCES

- Prof. Eduardo Olímpio Dias 2021–Current
Physics Department, Federal University of Pernambuco, Cidade Universitária-REC e-mail: eduardo.dias@ufpe.br
- Prof. Wilson Barros Júnior 2016–2017
Physics Department, Federal University of Pernambuco, Cidade Universitária-REC e-mail: wilson.barros@gmail.com