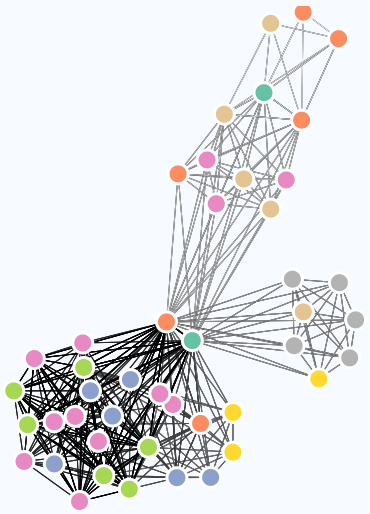
MARCELO ALBUQUERQUE

I am a petrophysicist with a unique combination of skills in applied machine learning, statistics and reservoir engineering. I am passionate about analyzing and extracting value from data, using exploration and visualization tools and deploying solutions for business problems.

Currently searching for a position that allows me to build tools leveraging a combination of visualization, machine learning, and software engineering to help people explore and understand their data in new and useful ways.



EDUCATION

2020 | 2018

MsC, Computer Science

UFRJ — Rio de Janeiro, RJ

- Master Thesis: Prediction of Petrophysical Properties Using Machine Learning and Hierarchical Multi-Task Linear Models

2008 | 2003

B.S., Electronics Engineering

ITA — São José dos Campos, SP

- Diploma Thesis: Applications of Time-Domain Back-Projection SAR Processing in the Airborne Case

INDUSTRY EXPERIENCE

Present | 2018

Data Scientist

Petrobras Research Center — Rio de Janeiro, RJ

- Develop Machine Learning models to predict Petrophysical Properties
- Build REST APIs and python/R packages to access and explore petrophysical data
- Enhance data storage and image processing workflows for microtomographic images
- Design petrophysical data visualization tools and web apps
- Develop reservoir simulation python packages to deploy and update petrophysical models using history matching bayesian methods

Download a PDF of this CV

CONTACT

marceloralbuquerque@gmail.com
github.com/mralbu
mralbu.github.io
linkedin.com/in/mralbu

LANGUAGE SKILLS

- Python
- R
- SQL
- Julia
- Bash
- C++
- Javascript

*Made with the R package **pagedown**.*

Last updated on 2020-09-11.

Present | 2015

Petrophysicist

Petrobras Research Center — Rio de Janeiro, RJ

- Coordinate the execution of Routine and Special Core Analysis (SCAL) data gathering for pre-salt and other strategic fields of Petrobras
- Analyze SCAL experimental data and provide meaningful petrophysical rock parameters for reservoir simulation
- Simulate and research observed physical phenomena and improve data acquisition methods
- Lead and support lab technicians and maintain Rock Compressibility laboratory equipment

2015 | 2010

Reservoir Engineer

Petrobras — Aracajú, SE

- Reservoir Engineer at the Sergipe-Alagoas Business unit (UO-SEAL)
- Management of mature oil and gas fields in the Sergipe Alagoas basin
- Oil Field Production and Reserves forecasting with analytical and numerical simulation tools (CMG Software Suite)

2010 | 2009

Petroleum Engineer

Petrobras — Salvador, BA

- Petroleum Engineering in-company specialization at Petrobras University

2008 | 2008

Engineering Intern

Orbisat — São José dos Campos, SP

- Developed a point-target simulator for a ground-based weather radar
- using Synthetic Aperture Radar concepts
- Supported the software development team evaluating and implementing radar signal processing algorithms in IDL

RESEARCH EXPERIENCE

2007 | 2007

Diplomand Researcher

Deutsches Zentrum für Luft und Raumfahrt (DLR) — Munich, DE

- Implemented a Synthetic Aperture Radar (SAR) processor in IDL and C / pthreads
- Investigated and developed applications of time-domain SAR processing: direct-geocoding and processing of curvilinear acquisition trajectories
- Researched a novel SAR acquisition geometry, Circular SAR

PUBLICATIONS

2018 | 2018

Estimation of Capillary Pressure Curves from Centrifuge Measurementes Using Inverse Methods

Rio Oil & Gas

- Authored with Felipe M. Eler, Heitor V.R. Carmargo, André L.M. Compan, Dario A. Cruz and Carlos E. Pedreira.

2008 | 2008

Applications of Time-Domain Back-Projection SAR Processing in the Airborne Case

European Conference on Synthetic Aperture Radar

- Authored with Pau Prats and Rolf Scheiber