# Wanderson Ferreira

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## **Objectives**

A position as Software Engineer. Despite my academic background, I always worked with software or algorithm development. Since 2016 I have been working full-time with software development related to Machine Learning (MLE) solutions. Today I have a great interest for software that add business value. I also have a great experience with Machine Learning models, techniques and the infrastructure needed to perform predictive analytics. Today I am very interested into Functional Programming and despite my knowledge and desire to work with MLE in the future, I would love to be focusing on software itself.

#### Education

2016–interrupted	MSc in Electrical Engineering, Universidade de São Paulo, Brazil.
	Thesis: Deep Learning: Inspecting Restricted Boltzman Machines Supervisor: Dr. Prof. Emilio Del Moral Hernandez Concentration: Computer Science, Scientific Programmind and Data Science.
2010-2015	Bachelor of Science in Geophysics, Universidade de São Paulo, Brazil
	Thesis: Global Optimization for AVO inversion in unconsolidated sediments. Supervisors: Dr. Liliana Diogo and Dr. Fred Hilterman (UH) Concentration: Scientific Programming
2014 – 2015	${\bf Exchange\ Program,\ Exploration\ Geophysics,\ University\ of\ Houston,\ US}$
	Thesis: Synthetic Seismogram modeling package in MATLAB Supervisor: Dr. Fred Hilterman Concentration: Scientific Programming

### **Programming Skills and Projects**

Python Libraries | Tensorflow, Keras, Sklearn, Pandas, Numpy, Multiprocessing, Pyramid, Pytest,

Unitest, SQLalchemy

Python Projects | arxivML, ConvNets, pandas (small contributions)

Fortran Projects | Development of Genetic Algorithm for Geophysical Applications

Lisp Projects | Maintainer of helm-spotify-plus, python-experiment and others small personal pro-

jects

Clojure | Development of small APIs and particular projects

Git | Maintainer of internal projects at work.

OS Unix advanced expertise, OSX and basic Windows.

Amazon AWS | RDS and EC2 deployment

Misc Projects | Involved in qutebrowser (keyboard-driven web browser), fish-shell and archlinux

forums for some months.

## Professional Experience

2018-current | Chief Information Officer at Captalys Investimentos

Working together with the CTO of the company to manage a Tech and Data Science team. Today I am focusing on the Captalys Platform which is a new business unit targeting to provide a complete framework to help companies perform credit loans inside their ecosystems. Tech stack used inside the project: Python and Golang for backend APIs, Docker, Kubernetes, KONG (API gateway), Mysql and

MongoDB databases.

2017–2018 | Data Scientist at Captalys Investimentos

Responsable for creating an area of Data Science inside the company to perform credit risk models for B2B loans. Implement machine learning models for hospitals of the whole country using technologies such as Python, Golang, Scala and Apache

 ${\it Cassandra\ databases.}$ 

2017–2017 | Product Developer Leader at TEVEC Metodologias e Sistemas

Responsable for the design and implementation of a Machine Learning framework to handle real-time forecasting for two major companies in the retail business in

São Paulo.

2016–2017 Analyst in Mathematical Modeling at TEVEC Metodologias e Sistemas.

Member of the research team to provide solutions in Machine Learning to attend supply chain problems. The main activity is related to development of new algorithms like clustering, decision tress and mainly neural networks of different

architectures to perform time-series predictions.

2015–2015 | Teacher Assistant at Universidade de São Paulo.

Supervising students in seismic classes, helping them with theoretical questions and practical exercises in the Seismic Unix package written in C and shell scripts.

2013-2013 Trainee in Geophysics at Institute of Technological Research of São

Paulo, IPT

Performed seismic, bathymetric, sonar data acquisition in Shallow Waters. Such

as sonar data processing and interpretation.

2012-2013 | Teacher Assistant at Universidade de São Paulo

Supervising students with Physics I, mainly with questions about mechanics.

# Scholarships and Awards

2017	Data Science Game 2017 World Finalist
2015	SEG/ExxonMobil Student Education Program Awards - SEP
2015	CNPq - Undergraduate Scholarship
2013-2014	CAPES - Brazilian Mobility Program Scholarship
2011-2012	CNPq - Undergraduate Scholarship
2010-2011	USP Rectory Scholarship for Undergraduate.

#### **Publications and Abstracts**

- Wanderson Ferreira and Fred J. Hilterman. Global optimization for avo inversion a genetic algorithm using a table-based ray-they algorithm. EAGE Conference Exibihition 2016 in Vienna., 2016
- Wanderson Ferreira Jonathan Mariano and Francisco Hiodo. Development of lock-in resistivimeter for measuring resistivity and induced polarization under high electrical noise. EAGE Conference Exibihition 2016 in Vienna., 2016
- Wanderson Ferreira and Wladimir Shukowsky. Estimation of total magnetization direction using helbig's method: A comparative study using the reduction to the pole operator. 13th International SBGf Congress, 2013
- Wanderson Ferreira and Alexandre Correia e Mrtins J.V. Study of the thermodynamic phase of hydrometeors in convective clouds in the amazon basin. AGU Fall Meeting, San Francisco, California., 2012
- Bruno Catandi Alexandre Correia, Wanderson Ferreira Fábio Frigeri, and Paulo Artaxo. Serena project: Studying aerosol interactions with cloud microphysics in the amazon basin. AGU Fall Meeting, San Francisco, California., 2012