Ian L. Rodrigues

Contact

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March 1st 1988

Education

2018 — Apache Spark 2 with Python
Udemy

2018 — The Node.js Master Class
pirple.com

2014 — Introduction to Machine Learning, with Andrew Ng
Coursera

2006 → 2010 — Bachelor of Science in Computational and Applied Mathematics
University of Campinas

2009 — Summer School at LNCC
National Laboratory of Scientific Computing

Experiences

04/2019 → current — **HPC Specialist** @ *CNPEM*
Work with high performance computing and image processing algorithms for Cryogenic Electron Microscopy for the National Laboratory for Nanotechnology at CNPEM, the largest nonprofit research institute in Brazil; specify storage systems for parallel computing and high throughput.

11/2018 → 01/2019 — **Data Engineer Consultant** @ *ViajaNet*
Data Engineering consulting for the travel agency company *ViajaNet* to help them build an Extract Load Transform (ETL) system using Python and Google Cloud. The system uses Python to extract flight tickets pricing information from a FTP server, and Python Pandas to transform the data and load it into a PostgreSQL database. All components of the system were deployed with Docker containers.

10/2018 → 11/2018 — **Data Engineer Consultant** @ *nG Solutions*
Data Engineer Consulting for *nG Solutions* (telecommunication company) to help them build an Extract Load Transform (ETL) system using Python and C++. The system extracts data from legacy terminals by simulating an interactive environment with pseudoterminals (PTY).

06/2017 → 09/2018 **Data Engineer** @ *Olivia AI*

Develop Extract Load Transform (ETL) systems with NodeJS on AWS Cloud for an personal finance advisor app. I also created a Python Jupyter Lab Cluster to analyse financial data with technologies like Python Pandas, PySpark and Scikit Learn. Developed classification models, forecast models, and recommendation systems with Scikit Learn.

06/2013 → 06/2017 **Software Engineer** @ *Cepetro*

Develop Seismic Processing algorithms as part of a Petrobras project. Worked with Distributed Computing and High Performance Computing. The goal was to develop highly optimized algorithms in C++ to process seismic data ranging from 1 Gigabyte to several Terabytes, and fully utilize a cluster of more than 2,000 machines by distributing the tasks with Python. Published and presented papers in several Oil & Gas conferences.

01/2009 → 01/2013 **Software Engineer** @ *GêBR Project*

Develop a Graphical User Interface for Seismic Processing as part of a Petrobras project. The program aims at the academic community for research & development purposes, and integrates with big computational clusters. The technologies used were C, GTK+, Sockets Programming, Python, and a little bit of JavaScript.

01/2009 → 07/2009 **Freelance Software Engineer** @ *Skedio Tec.*

Develop a Graphical User Interface with Python and GTK+ to interact with a concrete moisture probe through the RS232 Serial port.

04/2007 → 06/2008 **Software Engineer** @ *IgnisCom*

Develop a game for educational purposes with Macromedia Flash and Action script.

Publications & Side Projects

2018 **Bug fix on Python's core library**

While working on the ViajaNet project, I've found a bug on the core `ftplib` library. I then issued a bug report to Python's bug tracker and created a Pull Request on github to mitigate the issue.

🔗 https://github.com/python/cpython/pull/10520

2018 **Cognitivo AI selection process**

A simple web application that loads CSV data into a PostgreSQL, using `Python` and `sanic` library to build a REST API. This project was part of the selection process of Cognitivo AI, a platform that connects clients needing Data Science demands with developers and data scientists. I've been selected to do the ViajaNet consulting.

🔗 https://gitlab.com/fooliu/teste-cognitivo.ai

2017 **Pymei**

A Python library to read and manipulate SEG-Y Seismic files
https://github.com/hpg-cepetro/pymei

2016 **PY-PITS: A Scalable Python Runtime System for the Computation of Partially Idempotent Tasks**
https://ieeexplore.ieee.org/document/7803668

2013 **Enabling large data processing with the 3D ZO CRS Stack software**
https://wit.cen.uni-hamburg.de/fileadmin/user_upload/wit/reports/2013/WIT2013-Borin.pdf

Presentations

2015 Presented “Efficient and Fault Tolerant Computation of Partially Idempotent Tasks” on the Intel Tech Teather, at Rio de Janeiro, Brazil

2014 Presented “Enabling Large Data Processing With the 3D ZO CRS Stack Software” on the WIT Annual Report, at Hamburg, Germany

2011 Gave a GêBR Workshop on the 2011 SBGf International Conference, at Rio de Janeiro, Brazil

2009 Gave a GêBR Workshop on the 2009 SBGf International Conference, at Bahia, Brazil

Languages

Portuguese Native language

English Advanced

Spanish Basic