

Education

- 2014–2017 **Master of Mechanical Engineering**, *Universidade Federal de Pernambuco*, Recife-Brazil.
- 2008–2013 **Bachelor of Mechanical Engineering**, *Universidade Federal de Pernambuco*, Recife-Brazil.
- 2012–2012 **Exchange Student**, *Bucknell University*, Lewisburg-USA.
Awarded the Science Without Borders Scholarship

Master thesis

- title *Wind Turbine Performance Fault Detection and Diagnosis*
- supervisors Alexandre Costa and Pedro Rosas
- description Designed an automated wind turbine performance fault detection and diagnosis system aiming to exploit SCADA data. Uni and multivariable models were employed to estimate power and detect production faults. If detected, these faults were subjected to an innovative fault diagnosis method based on the mutual information.

Experience

Vocational

- 2014– **Project Engineer**, *Eólica Tecnologia*, Recife-Brazil.
- Responsible for the development of a wind turbine generator performance monitoring system.
 - Data analysis: Matlab/R/Python.
 - Prepared monthly technical reports with condition of over 100 individual wind turbine generators sent operation & maintenance (O&M) responsible and higher management.
 - Migrated data previously stored in Excel spreadsheets to a SQL based database.
 - Automated data extraction from heterogeneous sources (e.g. e-mail containing maintenance information and FTP servers) and database update.
 - Created a dashboard with ODBC connection to display key performance indicators using Excel and VBA.
- 2013–2014 **Intern**, *Eólica Tecnologia*, Recife-Brazil.
- Responsible for the creation of temperature analysis module of the performance monitoring system
 - Selected important features based on domain knowledge
 - Implemented algorithm to estimate temperature of critical components based on relevant features

Academia

- 2012 **Undergraduate Research**, *Bucknell University*, Lewisburg-USA.
- Investigated the effect of flow induced vibration on tainter gates stability through dynamic simulations in Simulink.
- 2011 **Undergraduate Research**, *Universidade Federal de Pernambuco*, Recife-Brazil.
- In charge of parallelization of the particle swarm optimization algorithm developed in Matlab for oil reservoir simulation.
- 2009 **Teacher Assistant**, *Universidade Federal de Pernambuco*, Recife-Brazil.
- T.A. for introductory programming class in the basic STEM curriculum. Duties involved preparing reviews for exams holding Q.A. classes and aiding students with laboratory assignments.

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📄 brodoll.github.io • 💬 skype: guilegend

Languages

Portuguese **Fluent**

English **Advanced**

French **Basic**

CAE/TOEFL Certificates

Computer skills

Advanced Matlab, Microsoft Excel/Word/Powerpoint

Intermediate R, Python, SQL, \LaTeX

Basic VBA, Git, html, Simulink

Self Learning

2015 **Coursera.**

- Getting and Cleaning Data
- Exploratory Data Analysis
- Reproducible Research
- The Data Scientist's Toolbox
- R Programming

Interests

- Piano, bass guitar, rock climbing, watercolor

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