

PERSONAL INFORMATION

Rudimar Baesso Althof

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Gender Male | Date of birth 14 August 1993

WORK EXPERIENCE

Oct 2019 - Now

IoT Consultant

RBA CONECTIVIDADE, JOINVILLE -SC, BRAZIL

Consulting and solution development services with Power BI, Power Apps, and Power Automate tools. Consultant for companies willing to implement IoT solutions and companies already implementing and needing help at their implementation.

- Lavazza Pro UK (Oct 2019 - Now): confidential.
- SmartOS (Nov 2019 - Now, own startup): Responsible for the definition, testing and implementation of architectures (hardware and software) for monitoring the status of serial production machines and creating indicators to aid decision making.

Jun 2019 to Set 2019

Researcher

SENAI INNOVATION INSTITUTES, JOINVILLE -SC, BRAZIL

Responsible for researching and implementing augmented reality (AR) solutions for remote robotic manipulation.

- Study of robotic applications using augmented reality.
- Development of software prototypes for robotic teleoperation in Unity.
- Image capture and streaming using OpenCV Python library.

Jun 2017 to Jun 2019

IoT Specialist

TERMICA SOLUTIONS, JOINVILLE -SC, BRAZIL

- Worked developing and integrating Unix based C++ and Python scripts along with MySQL database and web applications developed in PHP, Javascript and HTML using the Codeigniter and Vue.js frameworks.
- Implementation of APIs for inserting and retrieving data from a MySQL database using the Python Flask framework.
- Developed from scratch a monitoring system for PLCs data, reading data from the protocols MODBUS and OPC-UA. It was programmed in C++ and later switched to Python, both using OOP and paralelism.
- Developed scripts for evaluating data and sending alerts via e-mail and SMS, as well as creating PDF reports.
- Programming of an industrial furnaces using the Phoenix Contact PLCs using Function Blocks and Structured Text languages, interfacing with multiple Modbus TCP devices.
- Managed the backend structure in the Microsoft Azure cloud, maintaining a virtual machine hosting the application.
- Participated in INNOTECH Korea 2018, representing Termica Solutions, having meetings with Korean companies, presenting the ReMo discussing possibilities of cooperation between companies.
- Participated in the ABII - Brazilian Association of Industrial Internet (<https://www.abii.com.br>) meetings in the testbeds group.

EDUCATION AND TRAINING

2018 - 2020

Master's Degree

Federal University of Santa Catarina Joinville - SC, Brazil

PPGESE - Graduate Program in Electronic Systems Engineering

2011 - 2017

Mechatronics Engineering

Federal University of Santa Catarina, Joinville - SC, Brazil

- Final Thesis: Use of the Unscented Transform method for uncertainties quantification and its comparison with the Monte Carlo method. Case study: simulation of electrical fault in network fed by wind generators.
- Exchange through the Sciences Without Borders program in the United States, participating in activities at three different universities:
 - * Columbia University: American Language Program (144h)
 - * University of Idaho: Electrical engineering student (2 semesters)
 - * University of Alabama: Summer internship (3 months)
- Academic Merit: Best student of the Mechatronics Engineering course among UFSC Joinville graduates in Aug 2017.
- Assisted professors on multiple courses, teaching students, helping on classes and labs. Technological Chemistry (2011), Geometric Modeling (2012) and Programming Course (2015).

2018 - Now

Other Courses

Online courses to keep me updated

- Aug 2019: Systems Architecture Fundamentals (3h)
- Aug 2019: Agile projects with SCRUM (2h)
- Jul 2019: Internet and database development with Python and Django (4h)
- Oct 2018: Python Beyond the Basics - Object-Oriented Programming (5h)
- Aug 2018: Microsoft Power BI - Up and Running With Power BI Desktop (10h)

PERSONAL SKILLS

Languages

Portuguese: native | **English:** working proficiency | **German:** elementary

Tech skills

- Programming: MATLAB, C, C++, Python, ZeroMQ
- Web: Apache, HTML, Javascript, PHP, Django, Flask, MySQL, Microsoft Azure
- Other: Microsoft Power Platform (Power BI, Power Apps and Power Flow), Windows, Unix, Office Package, Electronics

ADDITIONAL INFORMATION

Publications

R. B. Althof ; M. FERBER . **Efficient Uncertainty Analysis of Wind Farms in the Time Domain using the Unscented Transform**. Em: 8th International Symposium on Power Electronics for Distributed Generation Systems, 2017, Florianópolis. 8th International Symposium on Power Electronics for Distributed Generation Systems, 2017.