
LEANDRO BOTELHO ALVES DE MIRANDA

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R&D Researcher / Data Scientist / Data Engineer

Bio

He has a BSc degree in Computer Science at the Federal University of Alagoas, Brazil, which included researchers in Pattern Recognition and Computer Graphics. Currently MSc and Ph.D. in Computer Science at Fluminense Federal University, Brazil. His master's research was in clustering algorithms, with emphasis on spatially constrained clustering. His Ph.D. research was in the Human Activity Recognition domain, focusing on adaptive strategies from Data Stream Learning algorithms. He has experience in Computer Science, focusing on Pattern Recognition, Data Mining, and Machine Learning. He worked on research involving Ambient Intelligence, principally in Context Reasonings for Human Activity Recognition on Context-Aware computing. Furthermore, they conducted research on building technological solutions using Machine Learning techniques for the integration of Edge Computing and virtualization paradigms in network functions (NFV), as well as scenarios related to human pose estimation from computer vision using Deep Learning.

He is a consultant at Blueshift enterprise, specialized in Big Data Analytics on the Azure platform, they have experience in source mapping, development of ETL processes (extraction, transformation, and loading), data pipeline development for data loading in Data Lake environments. Currently, he is Data Scientist with experience in Databricks, using advanced data analysis, machine learning, and visualization techniques to extract valuable insights and make data-driven decisions.

Personal Education

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|-------------|---|
| 2016 - 2022 | <p>Doctorate in Computer Science
<i>Fluminense Federal University, UFF, Niteroi, Brazil</i>
Advisor: José Viterbo Filho.
Co-advisor: Flávia Bernardini.</p> |
| 2014 - 2016 | <p>Master's Degree in Computer Science
<i>Fluminense Federal University, UFF, Niteroi, Brazil</i>
Advisor: José Viterbo Filho
Co-Advisor: Flávia Bernardini</p> |
| 2010 - 2014 | <p>Bachelor's Degree in Computer Science.
<i>Federal University of Alagoas, UFAL, Maceió, Brazil</i>
Advisor: Thales Miranda de Almeida Vieira</p> |

Professional Experience

- | | |
|-------------|--|
| 2023 - now | <p>Data Scientist
<i>Blueshift Enterprise</i>
- Data manipulation, processing, and concatenation from various sources to generate specific information tailored to the client's business rules.

- Implementation and statistical analysis of Statistical Process Control.</p> |
| 2021 - 2023 | <p>Data Engineer
<i>Blueshift Enterprise</i></p> |

Big Data and Analytics Consultant.
Source mapping.
Build ETL processes (loads and transformations) through Data Factory – Azure.
Develop Data Load Pipelines in Data Factory for Data lake Environment.
Develop routines for handling, analyzing, and ingesting large amounts of data via Databricks - Azure.

2021 - 2021

Ph.D. Researcher Fellow

Prefeitura de Niterói - Seplag

Ecosystem and Data Governance to Improve the Quality of Open Data Portals and Transparency in Niterói.

Open Government Data Ecosystem (OGDE) is a specific way of understanding how participated actors and groups create shared meaning, generate values around Open Data, and develop this process by their interaction properties, allowing or restricting the maturity and health of the ecosystem itself. The goal of this project is the design and implementation of an OGDE for the city of Niterói, considering:

- 1) The participation of several interested actors in be available and consume data and information from Niterói;
- 2) The various open data and information portals already built, as well as the Official Gazette portals, which we will create, and;
- 3) Best data governance practices, data ecosystem concepts, and laws on access to information, transparency, and general data privacy law.

In the context of the OGDE, I will consider the ecosystem practices and Data Governance for the construction of portals, business process mapping to improve the quality of portals from the viewpoint of data governance and transparency.

2020 - 2021

PhD Researcher

UFF - R&D - Sponsor: DELL

The objective of this Working Plan was the realization of an R&D project aiming to specify and implement a Framework for the orchestration of virtualized network services in Edge Computing environments. The project investigated and provided technological solutions for integrating the Edge Computing and Network Functions Virtualization (NFV) paradigms in an orchestration framework.

He developed vertical or horizontal auto-scaling (that is, to acquire more robust computing resources or generate more replicas of the same virtual network function and load balance between them) using strategies based on Machine Learning.

2019 - 2019

Research Engineer

ISABO

He was a Research Engineer in Pattern Recognition and Computer Vision fields. During this period, his research had been focused on people fall detection issues and object segmentation of RGBD images.

2020 - 2020

Content Teacher

Sagah - Soluções Educacionais Integradas

Content teacher of the learning unit: "Preparation and exploratory data analysis."

2018 - 2018

Content Writer

QDiscursivas

Content writer of the book: "Escritor conteudista do livro Provas Discursivas de Tecnologia da Informação Banca FCC ISBN 9788592627348"

2015 - 2021

LabTempo

Laboratório Tempo – Sistemas de tempo real e embarcados – IC/UFF – Niterói,Rj

He has expertise in the development of mining tools, algorithms, and visualization of spatial data with restriction. Also, he has experience in research on open government data analytics toward patterns in user behavior. He currently does studies in IoT, focusing on human activity recognition in ambient intelligences.

2011 - 2014

Laboratório CalaMGo

He has experience in Geometric Modelling, such as the development of tools for the insertion of geometric details on surfaces using parameterizations with gradient-based reconstruction. He has an award at the XXVII SIBGRAPI Conference On Graphics, Patterns And Images, in 2014, which is the most computer graphics conference in Brazil. Besides, he worked in Pattern Recognition researches, using the Kinect depth sensor, applying libraries as NITE and OPENNI. Both were focusing on gesture recognition.

Skills

Azure Services

- Azure Databricks
- Azure Data Factory
- Azure Functions
- Azure Data Lake Storage
- Azure Machine Learning
- Azure AI

AWS services

Basic Skills:

- DeepComposer
- SageMaker
- DeepLens
- DeepRacer

Data Engineering tools

Basic Skills:

- MongoDB
- Redis
- SQOOP
- Hive
- Pig, Flume
- Apache Spark
- Docker

Python

He has experience in this language, mainly in the use of Data Analytics libraries for Data Mining and Machine Learning areas. He knows tools like Pandas, Numpy, scikit-learning, Matplotlib, and seaborn. Also, he has intermediate experience using TensorFlow in Deep Learning,

Web Languages (PHP and JavaScript)

Basic Skill, he is able to create simple webpage.

Data Analytics Tools

- JMP
- Tableau Basic

JAVA

He has experience in this language, since theory until projects development. He has experience on tools for Data Mining and Machine Learning as WEKA API.

C++

He has experience in this language, mainly on graphics APIs, as Opengl e Opengl 4.

Android

Basic skill.

Certifications

- Microsoft Certified: Azure Data Scientist Associate (Number of Certification I408-5490)
- Microsoft Certified: Azure AI Engineer Associate (Number of Certification I434-2273)
- Microsoft Certified: Azure Data Engineer Associate (Number of Certification I633-9802)

Research Areas

- Machine Learning
- Data Mining
- Pattern Recognition
- Deep Learning
- Time Series Analysis
- Natural Language Processing
- Metaheuristics
- Computer Graphics
- Ubiquitous Computing
- Electronic Government Research

Idioms

- English (Advanced. He is not fluent)
- Spanish (Basic)
- French (Basic)

Awards

2018

Second Position on Hackaton (ERCAS), Escola Regional de Computação Aplicada à Saúde.

2014

Best Works at Workshop of Undergraduate Work, XXVII SIBGRAPI

2012

Academic Excellence, Federal of Alagoas University

2006

Honorable Mention - Alagoana Olympiad of Mathematics, Federal of Alagoas University

Conference Reviewer

- XIV Simpósio Brasileiro de Sistemas de Informação (SBSI 2018)
- Brazilian Conference on Intelligent Systems (2019)
- The Americas Conference on Information Systems (2020,2021)

Scientific Journal Reviewer

ISSN 1319-8025

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING

Publications

Lattes

<http://lattes.cnpq.br/6802508864911606>

