## ALEXANDRE HENRIQUE S. DIAS

I'm a Computer Engineer and Data Scientist. I enjoy spending my free time studying statistics, programming and reading Data Science-related articles. At work, I play my role mostly in building visualizations to clients and contributing to the company's R package.



#### INDUSTRY EXPERIENCE

Present 2019

#### **Data Scientist**

Loogbox

São Paulo, SP

- · Work primarily done in R, Python, and SQL to develop graphics visualizations.
- · I'm a contributor of the Loogbox R Package used to build R objects and data structures for the Loogbox Application.



#### **EDUCATION**

Present 2020

#### **Advanced Machine Learning Specialization**

Coursera - National Research University Higher School of Economics

· This specialization gives an introduction to deep learning, reinforcement learning, natural language understanding, computer vision and Bayesian methods.

Present 2020

#### MITx Micromaster Program in Statistics and Data Science

· The program covers the fundamentals of data science, statistics, and machine learning.

2019 2018

#### **B.S.**, Computer Engineering

UFRN - Federal University of Rio Grande Do Norte

• Natal. RN

· Member of the Modeling and Scientific Data Analysis team.

2017 2015

#### B.S., Sciences & Technology

UFRN - Federal University of Rio Grande Do Norte

• Natal. RN

- · Linear Algebra and Analytical Geometry assistant teacher.
- · Calculus II assistant teacher.

### RESEARCH EXPERIENCE

2019 2018

#### **Undergraduate Researcher**

Digital Metropolis Institute

**Q** UFRN

· Developed a traffic monitoring system using image recognition.

#### **CONTACT**

■ alexandre.hsd@gmail.com

in linkedin.me

github.com/alexandrehsd

M medium.com/@alexandre.hsd

y alehsdias

#### LANGUAGE SKILLS

R (tidyverse, base R, package development)

Python (pandas, numpy, matplotlib, seaborn, statsmodels, scikit-Learn)

SQL (MySQL, Oracle)

₫ git (and GitHub)

© C (Parallel Programming with OpenMP, pthreads and MPI)

**⊚** C++

Made w/ R pagedown package.

The source code is available at github.com/alexandrehsd/cv.

Last updated on 2020-10-09.

2017 2016

#### **Undergraduate Researcher**

Department of Informatics and Applied Mathematics



· Developed an interactive theorem prover based on Linear Logical using the Maude programming language.



### ₩ SELECTED DATA SCIENCE WRITING

A mathematical derivation of the Law of Total Variance 2020 The Startup, Medium

· O que é e como usar a lei da variância total.

2019

#### Clustering with K-means: simple yet powerful

Medium

· Explain what is Cluster Analysis, and how the K-means algorithm work providing its pros and cons.

2019

#### An introduction to Linear Regression

Medium

· Explain all assumptions behind Linear Regression models, how to measure their performance, and how to implement a model in Python.

#### **ACADEMIC PUBLICATIONS**

2019

### Performance Evaluation of an Edge OBD-II Device for Industry 4.0

Institute of Electrical and Electronics Engineers - IEEE

· Authored with Ivanovitch Silva, Paolo Ferrari, Diego Silva, Marianne Silva, and Gabriel Signoretti.



#### CERTIFICATES & COURSES

2019 2018

#### DataCamp completed tracks

#### DataCamp

- · Data Scientist with Python.
- · Data Analyst with Python.
- · Data Manipulation with Python.
- · Machine Learning with Python.
- · Importing & Cleaning Data with Python.
- · Python Programming.
- · Python Programmer.

I am most interested in readings about data science, statistics, and Al.

Paper published in the 2019 II Workshop on Metrology for Industry 4.0 and IoT (MetroInd4.0&IoT). Naples, Italy.



Mar. 2019

# Understand what is Data Science and how this field is going to color the 21st Century (translated)

Arduino Day 2019: A worldwide celebration of Arduino

**Q** UFRN

• Invited talk about what is data science and what it takes to become a data scientist.

Dec. 2018

# Predicting Pulsar Stars: How Data Science helps us understand the universe (translated)

II seminar on Data Science Applications

**Q** UFRN

 $\cdot$  Talk about the importance of detecting Pulsar Stars, and how we can implement a simple neural network to beat XGBoost.