# **LUIZ RENNÓ COSTA**

## Data Scientist | Data Engineer | Machine Learning Engineer

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- in luiz-rennó-costa
- luizrennocosta

# **STRENGTHS**

# Python pandas numpy

sklearn keras tensorflow

Data Wrangling ETL/ELT

ML Modelling ML Pipelines

# Docker Kubernetes

SQL/NoSQL Airflow

PySpark Hadoop

GCP Git Linux

# **LEARNING**

Deep Learning (pytorch)

Reinforced Learning

**Audio Processing** 

# **LANGUAGES**

Portuguese: Native

**English: Fluent** 

# REFERENCES

#### Ref 1

in Felipe de Albuquerque

Ref 2

in Arthur Lemos

# **ABOUT ME**

Hello, I'm Luiz, a MSc in Electrical Engineering focused on Machine Learning research, currently working on the Data Engineering field on a quest to become a full-fledged specialist on the Data and Machine Learning fields. I enjoy tough challenges and thinking outside the box in order to solve them.

# **EXPERIENCE**

# Data Engineer | Dextra Consulting

**1**2/2020 - Present

Remote

• Creation of Spark jobs for the execution of Machine Learning models on a Hadoop environment.

## Data Engineer | Samsung Electronics

**i** 01/2020 - 09/2020

- Campinas, Brazil
- Data extraction procedure automation using a distributed architecture with Apache Airflow and Docker
- Creation of spark jobs for data indexing and logging of metadata.
- Relational database architecture and modeling for event logging
- General automation of procedures and ETLs using Bash, Python, and Docker
- Development of database-interface APIs using NodeJS

#### Data Scientist | Grupo SOMA

**=** 07/2019 - 12/2019

- Rio de Janeiro, Brazil
- Implementation of a cluster using Kubernetes (GKE) for the orchestration of dockerized ETLs in Python.
- Creation of a scalable development platform used for several projects using Jupyter Hub hosted in a cluster with Kubernetes.
- Development of a workshop on data science, machine learning models and their applications.
- Implementation of a supervised model to predict sales of new products based on historical data and visual characteristics, with direct development on the whole machine learning chain, from data processing to serving the model through a REST API using Flask.
- Establishment of a work flow to analyze and compare machine learning models using MLFlow.

#### Masters Scholarship | COPPETEC

**i** 03/2017 - 03/2019

- Rio de Janeiro, Brazil
- Development of an autonomous system for defect propagation monitoring based on acoustic emission on rigid pipes

#### **Honorable Mention**

Prize awarded for the 5 finalists (of over 1000) students at the 7th Week of Academic Integration at UFRJ



#### **Hackathon Winner**

Winner of the first Hackathon hosted at **UFRJ** 



#### Completed Deep **Learning Specialization** on Coursera

The courses included:

- Neural Networks and Deep Learning
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- Structuring Machine **Learning Projects**
- Convolutional Neural Networks
- Sequence Models

# **CHIEVEMENTS** Academic Internship | Biomedical Engineering Program - UFRJ

**2016 - 2017** 

- Rio de Janeiro, Brazil
- Research in applied control for bio medicine, with a focus on the rehabilitation of patients with Spasticity.

# **EDUCATION**

### MSc. in Electrical Engineering | Federal University Of Rio de Janeiro

**i** 03/2017 - 04/2019

Rio de Janeiro, Brazil

- GPA: 2.88/3.0 (A)
- Study and research on applied machine learning techniques and models for a project in the Oil and Gas industry in colaboration with PETROBRAS.

## BSc. in Electronics and Computer Engineering | Federal University Of Rio de Janeiro

**1** 03/2013 - 03/2019

Rio de Janeiro, Brazil

• GPA: 8.3/10.0

# **PROJECTS**

### Anime Opening Rate (WIP)

- iii 01/2021 Present
- Trying to define if it is possible to guess an anime's overall rate on My Anime List using only it's opening song. An approach using Deep Learning and classic Signal Processing techniques.

# Kubeflow ML Pipeline | 😱



- **11/2020**
- A hands-on project for learning about Kubeflow's ML Pipelines. Consists of a 6staged pipeline from data ingesting all the way to model deployment.

#### Binary Animal Game | 😱



- **11/2020**
- An Object-Oriented approach to a simple guessing game where you can define yesno questions.

### RS State Procurement Data Study | 😯



- 09/2020
- A study of grants and procurement of the Rio Grande do Sul state.

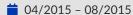
### **Energy Consumption Management System**

- **=** 05/2016
- Winner project of the 1st Hackathon UFRJ. Development of the software and hardware of an energy consumption management project, that remotely controls air conditioning devices, written in C++.

#### Quadcopter Flight Control and Build | U |







• Development of the entire quadcopter's control unit using Arduino.