

HIAGO DOS SANTOS

Mechatronics Engineer | Data Scientist | AWS Certified

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👤 26 years old

📍 Recanto das Emas, Brasília

🔗 hiagop22

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🌐 https://aih.dev.br/

PROFESSIONAL EXPERIENCE

Data Scientist

📅 Jun 2021 – Present

📍 Radio Memory

- Deployment of APIs using Chalice, Flask and FastAPI on AWS infrastructure using Docker and Terraform
- Works on all the steps of model development, from data mining and model training to model deployment on AWS infrastructure
- Development and finetuning of neural network based on computer vision tasks, such as: keypoint detection, semantic segmentation, object detection, single and multilabel classification, siamese model, generative adversarial network (GAN), autoencoder and transformer
- Use of unsupervised algorithms to outlier detection and streamlit tool to result presentation

VOLUNTEER WORK

Competition Team (Autonomous Robots)

UnBall Team - Robot Soccer

📅 Feb 2018 - Jun 2022

- Develops and teaching of Python scripts
- Develops and teaching reinforcement learning and neural networks
- Responsible for financial management and generating monthly reports for project contributors

Teaching Assistant

Introduction to Linear Algebra

📅 Mar 2019 – Jul 2019

📍 UnB

Calculus 3 (Multivariable Differential and Integral Calculus)

📅 Aug 2018 – Dec 2018

📍 UnB

Calculus 2 (Series and Differential Equations)

📅 Mar 2018 – Jul 2018

📍 UnB

Algorithms and Computer Programming

📅 Aug 2017 – Dec 2017

📍 UnB

Programming Marathon

IV Marathon

📅 2016/02

📍 UnB

The aim was to solve logic problems using programming to implement solutions.

PAPER PUBLICATIONS

Minimal underactuated synchronization with applications to secure communication

📅 Jun 2023

Journal: Communications in Nonlinear Science and Numerical Simulation

Qualis: A1 (94% percentile)

EDUCATION

Mechatronic Engineering

University of Brasília (UnB)

📅 Jul 2016 – Dez 2023

- **Final Course Project:** Reinforcement Learning applied to VSSS category of Robotic Soccer.
Description: Development of an autonomous agent able of scoring goals through neural networks, reinforcement learning algorithms and Pytorch framewok. ([repository link](#))
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Electrotechnical Technician

Technical School of Brasília (ETB)

📅 Aug 2014 – Oct 2017

🕒 1836 h

AWS CERTIFICATION

- AWS Cloud Practitioner
- AWS Solutions Architect - Associate
- AWS Developer - Associate

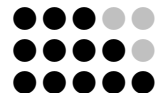
LANGUAGES

English

Understands reasonably, speaks reasonably, reads well, writes reasonably.

SKILLS

Django, JavaScript, HTML5, CSS, C++, AWS, Terraform
Docker, Git, OpenCV, MySQL, PostgreSQL, FastAPI
Keras, NumPy, Pytorch, C, Python, Microsoft Office Suite



PERSONAL PROJECTS

Database for Social Network

- Utilized Br Model for developing Entity-Relationship and Relational Model diagrams. Applied relational algebra for query applications. Table normalization and use of PostgreSQL as engine.

SQL Data Analysis

- Advanced SQL techniques for obtaining Insights in a public relational database.

Serveless API AWS

- This repository demonstrates a simple project showcasing how to create an API in AWS using Terraform + FastAPI + Pytest + ECR + JWT + Lambda.

Personal Website hostesd on AWS

- This repository demonstrates how my own website was made in AngularJS and hosted on AWS using resources such as: Terraform, S3, CloudFront, Route53.

Facial Recognition using neural network

- This project aims to showcase the use of Pytorch to recognize people. Some topics are convered, such as: Pytorch lightning framework, siamese models, augmentation techniques, JSON, matplotlib.

Pests Classification

- Project of a neural network using the Keras Framework to classify pests in tomato plantations.

Keras Projects

- This repository aims to showcase some topics studied in in the subject of Machine Learning, when I used keras Framework and sklearn, such as: KNN, k-means, RNR, LSTM, SVM, Reinforcement learning.

Image Processing

- This repository contains some image processing works that were made during Image Processing subject, such as: k-means, interpolation, homomorphic filtering, reject notch, median and low pass filters, histogram analysis and morphological operations.