

GUILHERME LEÃO

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EDUCATION

Technological Institute of Aeronautics (ITA) — SP, Brazil
B.Sc in Electronics Engineering (Summa Cum Laude)

Feb. 2016 - Dec. 2021
Overall Grade: 9.53/10

WORK EXPERIENCE

FieldPRO

Apr. 2022 - Present

Data Engineer and Data Scientist

- Managed and maintained ETL processes to ensure automated and seamless data pipeline operations, utilizing Celery for scheduling ETL jobs to extract data from various APIs and databases.
- Updated our APIs to give important historical and forecast climate data of the client farm helping them to easily identify crop stage and their needs to improve yield.
- Enhanced farm's raining analysis by merging observational measurements with satellite rainfall estimates.
- Developed a soil moisture estimate model that considers soil parameters and rainfall analysis in order to give insights about growing conditions so actions could be done to avoid crop loss.

FieldPRO

Sep. 2021 - Apr. 2022

Hardware Developer

- Designed the schematic, defined the Bill of Materials (BOM) and projected the Printed Circuit Board (PCB) of a new version of the product expanding its capabilities to support several communication technologies (GSM, UMTS, LTE, Wi-Fi and satellite), enabling installation in more challenging environments in Brazil.
- Updated the electrical windsock and anemometer circuits to reduce power consumption and developed a new supply system incorporating rechargeable batteries and solar panels to enhance the weather station's autonomy and minimize maintenance interventions.

GreenLab Solutions

Dec. 2020 - Aug. 2021

IoT Developer Intern

- Developed and installed electronics for automated hydroponics growing chamber, where environmental conditions such as humidity, temperature and CO_2 concentration were monitored and remotely controlled.
- Designed and programmed firmware for circuits using ESP8266 and ESP32 development boards, connected to various sensors, to monitor and control the internal microclimate of the growing chamber.

TUHH - Institut für Flugzeug-Systemtechnik

Oct. 2019 - Sept. 2020

Software Developer Intern

- Extended software-based tools used for cross-validation of aircraft systems, enabling engineers to identify problems and perform trade-offs during early design phases, resulting in reduced changes and cost savings during advanced stages of engineering.
- Enhanced tools needed for validating systems topologies, tasks allocations, and data flows in avionics systems.

EXTRACURRICULAR ACTIVITIES

RedeCASD

Mar. 2016 - Oct. 2017

Computer Network Administrator

- Managed and maintained the computer network of all students living in the university dormitory.
- Developed *InstaRancho* Android app (using Ionic Framework) used by students who attend the campus canteen.

SKILLS

Computer Languages

Python, C, C++, C#, MATLAB, R, PHP

Software & Tools

Pandas, Flask, NumPy, InfluxDB, Celery, Redis, Keras, Scikit-Learn, Git, Arduino, GNU Linux, ESP32, Altium Designer, FreeRTOS, Quartus, LTspice, KiCad, PlatformIO, Unity

Languages

Portuguese (native), English (advanced), German (beginner)

AWARDS

2nd Selected Best Paper, 19th IEEE Latin American Robotics Symposium

2022

Summa Cum Laude, B.Sc in Electronics Engineering at ITA

2021

7th place, International Young Physicists' Tournament Brazil

2014

Silver Medal, Brazilian Physics Olympiad (OBF)

2013, 2011

Silver Medal, Brazilian Olympiad in Informatics (OBI)

2012