

GUILHERME GONÇALVES

Computer Engineer

i 07 June 1994, Brazilian **@** inacio.guilherme@gmail.com **☎** +55 22 99923-1446
in linkedin.com/in/inacioguilherme **🐙** github.com/ingoncalves

📍 Nova Friburgo, Brazil



EXPERIENCE

Full-stack Developer & Software Engineer

O2 Filmes

📅 Sept 2018 – Present **📍** Remote

- Developed a robust and online text editor and project manager dedicated to screenwriters.
- Developed its Back-end using Ruby on Rails and its Front-end using React, operating in a large-scale distributed architecture.
- Implemented features such as multi-user tracking, data visualization, notifications, file upload, advanced graphical interface features, etc.

Data Quality Validator

CERN – European Organization for Nuclear Research

📅 Feb 2021 – Mar 2021 **📍** Remote

- Analysis of data quality and integrity of electronic components in the Tile Calorimeter, the hadron calorimeter covering the central region of the ATLAS experiment at the Large Hadron Collider.

Scientific Researcher & Software Engineer

CERN – European Organization for Nuclear Research

📅 Mar 2019 – Mar 2020 **📍** Geneva, Switzerland

- Designed and developed an energy estimation algorithm for the ATLAS Tile Calorimeter.
- The tool is based on machine learning techniques and was developed using C++ in a world-wide distributed system.
- Created a pulse generator used to simulate electronic readouts for data processing and physics analysis.

Full-stack Developer & Software Engineer

DataHex Computer Technology

📅 May 2016 – Jun 2018 **📍** Nova Friburgo, Brazil

- Developed and Designed an Event Ticket application for Android with data synchronization and Bluetooth printer.
- Developed and Designed a cloud-based Point of Sale system with business management features.
- Developed its Back-end using NodeJS and its Front-end using AngularJS following the micro-services approach.
- Developed a desktop application using Electron with data synchronization across the internet and among multiple local network nodes (using P2P).
- Developed an industry-standard authentication system implementing the OAuth 2.0 and OpenID Connect protocols.

EDUCATION

Doctor's degree in
Computational Modelling

Rio de Janeiro State University

📅 Mar 2021

Master's degree in
Computational Modelling

Rio de Janeiro State University

📅 Jan 2018 – Apr 2020

Bachelor's degree in
Computer Engineering

Rio de Janeiro State University

📅 Jan 2012 – Aug 2017

ACHIEVEMENTS

🏆 Cum Laude Honors – Rio de Janeiro State University

Academic honors awarded due to the high average grade.

STRENGTHS & SKILLS

Full-stack Development

Software Engineering

Signal Processing

Machine Learning

Cloud Computing

AWS

Agile development

C++

Docker

Git

JavaScript

Java

Kubernetes

Linux

Lua

NoSQL Databases

NodeJS

OAuth

OpenID

PHP

Python

React

Ruby on Rails

Ruby

SQL Databases

Scrum

Tensorflow

Test automation

LANGUAGES

Portuguese

English

French

Spanish



EXPERIENCE

Full-stack Developer & Mobile Developer

Vista Group Network

📅 Jun 2014 – Apr 2016

📍 Nova Friburgo, Brazil

- Developed a cloud-managed parking software using Android devices for ticketing and infringement monitoring.
- Developed an iOS and Android application for parking tickets purchase using Ionic and VB-Net.
- Created software to detect free parking spaces using image processing from surveillance cameras. The tool was developed using Python and Open-CV.

PUBLICATIONS

📄 Journal Articles

- Gonçalves, G.I. et al. (2020). "Performance Evaluation of Energy Reconstruction Methods in High Energy Physics Experiments". In: *Revista Mundi Engenharia, Tecnologia e Gestão (ISSN: 2525-4782)* 5.2.

👥 Conference Proceedings

- Gonçalves, G.I. and ATLAS Tile Collaboration (2021). "Energy Reconstruction Techniques in TileCal under High Pile-up Conditions". In: *28th International Conference on Systems, Signals and Image Processing*, Slovakia.
- Gonçalves, G.I., B.S.M. Peralva, L.M. Andrade Filho, et al. (2020). "Performance of Energy Estimation Algorithms for the Tile Calorimeter of the ATLAS Experiment." In: *Anais do Congresso Brasileiro de Autômática*. Brazil.
- – (2018). "Energy Estimation Based On Wiener-Hopf Filtering For The ATLAS Tile Calorimeter". In: *Anais do XXI Encontro Nacional de Modelagem Computacional*. Brazil.
- Gonçalves, G.I., B.S.M. Peralva, R.P. Marques, et al. (2017). "Classification Of The Masticatory Side Pattern Using Digital Image Processing". In: *Anais do XX Encontro Nacional de Modelagem Computacional*. Brazil.
- Gonçalves, G.I., W.R. Telles, et al. (2015). "Development Of An Application For Monitoring Real-Time Water Levels In The Bengalas River Based On Direct And Inverse Problems Technical". In: *Anais do XVIII Encontro Nacional de Modelagem Computacional*. Brazil.

REFEREES

Prof. Bernardo S. M. Peralva

@ bernardo.peralva@gmail.com

✉ Nova Friburgo, Brazil

Dir. Paulo Morelli

@ paulo@o2filmes.com

✉ São Paulo, Brazil