## **GUILHERME GONÇALVES**

#### **Computer Engineer**

**♀** Geneva, Switzerland



#### **EXPERIENCE**

## Scientific Researcher & Software Engineer CERN - European Organization for Nuclear Research

Mar 2019 - Present

**9** Geneva, Switzerland

- Designed and developed an energy estimation algorithm for the ATLAS Tile
- 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 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.
- Implemented features such as multi-user tracking, data visualization, notifications, file upload, advanced graphical interface features, etc.

# Full-stack Developer & Software Engineer DataHex Tecnologia em Informática

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.

## Full-stack Developer & Mobile Developer Vista Group Network

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 lonic 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.

#### **EDUCATION**

Master degree in Computational Modeling

Rio de Janeiro State University

🛗 Jan 2018 - Present

Bachelor 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

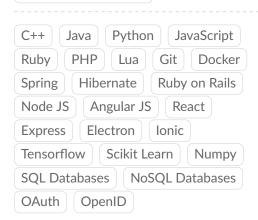
Full-stack Development

Mobile Development

Machine Learning

Image Processing | Cloud Computing

Software Engineering



### **LANGUAGES**

Portuguese English French Spanish



### **COURSEWORK**

- Signal Processing
- Neural Networks
- Statistical and Probabilistic Methods

### **PUBLICATIONS**

#### Conference Proceedings

- Gonçalves, G.I., B.S.M. Peralva, L.M. Andrade Filho, et al. (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

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- ➤ Nova Friburgo, Brazil

#### Dir. Paulo Morelli

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