

HEITOR DE BITTENCOURT

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SKILLS

Python, Bash, Golang, Linux, Backend, REST APIs, CLI, Infrastructure, Terraform, Nix, AWS, Azure, Git, Docker, CI/CD, GitHub Actions, Systemd, Observability, Distributed Systems, High Performance Computing (HPC), Open-source, Documentation Writing, Automation, Teaching, Troubleshooting, Agile, Scrum.

EXPERIENCE

Pasteur Labs

Simulation Systems Engineer

Oct 2023 - Present

US, Remote

- Building Simulation Intelligence solutions.
- Building scalable infrastructure for Machine Learning and simulation jobs.
- Misc: Python, Golang, Bash, Terraform, Packer, AWS, Azure, Linux, Nomad, Docker, Git, GitOps, CI/CD, GitHub Actions, Open-Source, Documentation

Lavanet

Senior DevOps Engineer

Jan 2023 - Sep 2023

US, Remote

- Expanded Blockchain technologies.
- Member of the DevOps team, maintaining a fleet of bare-metal servers and VMs globally distributed.
- On-boarded and first person of contact for technical support for clients.
- Wrote extensive internal documentation about processes, systems and troubleshooting sessions.
- Misc: Python, Rust, Golang, Bash, Terraform, Ansible, Linux, Docker, Distributed Systems, Git, GitOps, CI/CD, GitHub Actions, Caddy, Nginx, Gatus, DevOps, Open-source, Documentation.

Omnivector Solutions

Principal Infrastructure Engineer

Feb 2021 - Oct 2022

US, Remote

- Led the Infrastructure team.
- Responsible for the product's core architecture, scalability and functionality.
- Wrote extensive documentation about the products, for end-users and coworkers.
- Misc: Python, Juju, Bash, Git, GitHub Actions, Open-source, Infiniband, Slurm, Linux, CentOS, Ubuntu, XFS, Systemd, Fluentbit, Prometheus, Grafana, etcd, LXD, REST APIs, Jira, Scrum, interviewing candidates.

Itera

Python Engineer

Aug 2019 - Dec 2020

São Carlos, Brazil

- Engineered A.I. solutions.
- Responsible for the infrastructure.
- Containerized the backend, frontend and A.I. pipelines, scaling the processing power as needed.
- Developed backend and REST APIs in Python.
- Misc: Python, FastAPI, Bash, Docker, Git, RabbitMQ, AWS (EC2, S3), Scrum.

CERN

Researcher

Aug 2018 - Dec 2018

Geneva, Switzerland

- Data mining of large-scale Physics' datasets.

- Categorisation of datasets into hierarchical topics.
- General portal improvements: documentation, glossary, markdown engine, user interface.
- Misc: Python, Flask, Bash, Docker, Git, HPC, OpenData, OpenSource, ROOT.

University of São Paulo

Undergraduate Researcher

Jan 2013 - Feb 2015

São Carlos, Brazil

- Simulated the evolution of spin systems in a magnetic field stimulated by RF pulses.
- Developed a GUI using Qt under Python for visualization of magnetic profiles.
- Misc: Python, C++, Cuda, QT, Boost, Nuclear Magnetic Resonance.

EDUCATION

University of São Paulo

Master of Science in Physics

Feb 2017 - Mar 2021

São Carlos, Brazil

- Thesis: *Search strategies and phase transition in the Random Boolean satisfiability problem.*
- Link: <https://doi.org/10.11606/D.76.2021.tde-02092021-162034>

Helsinki University

Bachelor of Science in Physics

Aug 2015 - Jul 2016

Helsinki, Finland

- Exchange student.

University of São Paulo

Bachelor of Science in Physics

Jan 2013 - Jan 2017

São Carlos, Brazil

PATENTS AND PUBLICATIONS

PyMR - A Framework for Programming Magnetic Resonance System

2019

- Patent number BR512019001829-0.

Open data provenance and reproducibility: a case study from publishing CMS open data

Nov 2019

- Online at <https://doi.org/10.1051/epjconf/202024508014>

Basic Python Course textbook - in Portuguese

2016

- Online at <https://curso.grupysanca.com.br/>