HEITOR DE BITTENCOURT

heitorpbittencourt@gmail.com   https://linkedin.com/in/heitorpb
https://github.com/heitorpb   https://heitorpb.github.com

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   Oct 2023 - Present
Simulation Systems Engineer   *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   Jan 2023 - Sep 2023
Senior DevOps Engineer   *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   Feb 2021 - Oct 2022
Principal Infrastructure Engineer   *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   Aug 2019 - Dec 2020
Python Engineer   *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   Aug 2018 - Dec 2018
Researcher   *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 Jan 2013 - Feb 2015
Undergraduate Researcher *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 Feb 2017 - Mar 2021
Master of Science in Physics *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 Aug 2015 - Jul 2016
Bachelor of Science in Physics *Helsinki, Finland*

- Exchange student.

University of São Paulo Jan 2013 - Jan 2017
Bachelor of Science in Physics *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/