Gabriel Rodrigues

PhD Candidate

- ▶ Bahia, Ilhéus
- ▶ Brazillian
- ▶ UESC

Skills

R — 5 yrs.

Python — 2 yrs.

Rmarkdown — 5 yrs.

Quarto — 1 yr.

Data Analysis — 6 years

Shiny — 1 yrs.

Tools

- ▶ Git
- ▶ RStudio
- ▶ VS Code
- ▶ Terminal

Education

04/2023 - 05/2025

MSc. in Genetics and Molecular Biology

Summary

I am a Master's graduate in Genetics and Molecular Biology and current PhD Candidate, specializing in the intersection of genomics, bioinformatics, and public health surveillance. My core technical skills include high-throughput sequencing data analysis (RNA-Seq processing, assembly, differential expression), advanced Python and R programming, and expert command-line proficiency (Linux). I have a proven ability to translate complex molecular and epidemiological data into actionable insights, demonstrated through the development of bioinformatics pipelines for pathogen sequence identification and the creation of real-time public health dashboards leveraging large-scale disease information systems. I am adept at collaborating across scientific disciplines to address pressing health challenges and committed to strengthening regional capacity in data-driven disease monitoring and outbreak response.

Experience

PhD Researcher, Bioinformatics — 04/2025 - Present

Biotechnology and Genetics Center
UESC - Universidade Estadual de Santa Cruz

Developing and maintaining ViralQuest, an open-source Python pipeline for the rapid and accurate identification and annotation of viral sequences.

Public Health Data Analyst/Dashboard Developer — 08/2025 - Present

UESC - Universidade Estadual de Santa Cruz
Regional Health Authorities

Utilizing Notifiable Diseases Information System data to develop real-time response dashboards using R Shiny. This work translates complex epidemiological data into actionable information for regional policymakers in the South Bahia state.

Master's Researcher - Genetics & Mol. Biology — 04/2023 - 05/2025

Biotechnology and Genetics Center
UESC - Universidade Estadual de Santa Cruz

Conducted comprehensive RNA-Seq data analysis (acquisition, processing, assembly, differential expression) focused on *Theobroma cacao*. Engaged in collaborative projects resulting in peer-reviewed publications on novel viral species in cocoa and arthropods.

Projects

See my **github profile** for a comprehensive list of open source projects.
Bioinformatics Pipeline (Python)
Creator and Maintainer

ViralQuest: An open-source Python package (available on PyPI and GitHub) for the rapid and accurate identification and annotation of viral sequences., Designed to streamline genomic surveillance and pathogen discovery workflows for molecular epidemiology., Focuses on advanced sequence alignment, annotation methods, and efficient coding practices.

Universidade Estadual de Santa Cruz

Dissertation: RNA-Seq Analysis of T. cacao

06/2018 - 08/2022

Bachelor in Interdisciplinary Sciences
Universidade Federal do Sul da Bahia

Biostatistics of Native species in Antlantic Forest

Contact

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⌂ Personal Blog

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🐦 gabrielvpina

Public Health Dashboards (R Shiny)
Developer and Analyst

Developed real-time disease monitoring dashboards leveraging official SINAN (Notifiable Diseases Information System) data for the South Bahia state region., Used the R Shiny package to translate complex epidemiological data into clear, actionable information., Supports regional policy-makers and local public health authorities in accelerating outbreak response and decision-making.

Academic Research & Collaborations
Lead Researcher and Genomic Analyst

Master's thesis involved end-to-end RNA-Seq data analysis (processing, assembly, differential expression) on Cocoa plants., Collaborative pathogen discovery: published work identifying novel viral species in cocoa and arthropods., Genomic screening project: analyzed miRNA data to investigate metabolic function in arthropods.