

# JULIO RIVEROS

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## Skills

- AWS | Git | Linux | Machine Learning | RNA-Seq Analysis
- Python | R | SQL
- Spanish, Portuguese, Guarani – *All professional proficiency or above*

## Experience

### Machine Learning Researcher in Biomedical Speech Analysis

UNILA

Remote

09/2022 - Current

- Employed Python-based tools to analyze voice data in Alzheimer's disease prediction, reaching a significant accuracy milestone of 79.17% using specific Machine Learning models.
- Processed voice recordings to extract relevant patient information, preparing it for numerical analysis.
- Conducted rigorous testing of various Machine Learning models, highlighting the inherent complexities and challenges in predicting Alzheimer's disease from voice data.

### Drylab Lead Coordinator

SynFronteras

Remote

08/2022 - 12/2023

- Led the team as the drylab leader in a recognized achievement, securing a bronze medal in the overgraduate category of the iGEM (International Genetically Engineered Machine) competition.
- Led innovative molecular modeling efforts using AlphaFold2 and ColabFold2 to develop a precise 3D structure prediction for an uncharacterized protein, achieving a 91.02% structural similarity via ERRAT2, ensuring a reliable protein model.
- Conducted molecular dynamics simulations, emphasizing enhanced stability of the complex at lower temperatures, providing pivotal insights into its structural behavior. Additionally, led docking simulations and correlation analyses, revealing the fused complex's heightened affinity to substrates compared to individual proteins, indicating the potential for improved binding efficacy.

### Teaching Assistant in Computational Thinking for Biotechnology

UNILA

Paraná, Brazil

02/2023 - 06/2023

- Designed problem sets to evaluate students' comprehension of computational methodologies, transforming abstract coding concepts into real-world applications using Python.
- Implemented customized Python coding exercises with biotechnology-oriented scenarios, ensuring a comprehensive understanding of computational thinking principles, resulting in a 100% pass rate.

### Teaching Assistant in Computer Programming

UNILA

Paraná, Brazil

08/2022 - 12/2022

- Assisted in clarifying programming concepts and debugging code in Python for over 60 students.
- Utilized Python programming language, interactive sessions, and code reviews to explain fundamental programming principles, leading to an average improvement of 30% in students' coding proficiency within the semester.

### Bio-Art Project Member

Microlândia

Paraná, Brazil

04/2022 - 12/2022

- Developed and executed unique artistic creations by leveraging the inherent properties of Bacteria and Fungi on Petri plates, merging scientific understanding with artistic expression in five innovative projects.
- Presented physical exhibitions featuring bio-artistic pieces cultivated from bacteria and fungi on Petri plates.

### Social Media Manager

LiNABiotec

Remote

05/2021 - 04/2022

- Managed and curated engaging social media content, with a focus on Instagram and YouTube platforms.
- Achieved significant growth metrics, showcasing a remarkable 1190% increase in YouTube views and a substantial 97% rise in Instagram likes within a year.

## Education

### Bachelor of Science

Universidade Federal da Integração Latino-Americana

Paraná, Brazil

02/2020 - Current

- Major in Biotechnology
  - **Cumulative GPA:** 9.10 / 10.00
  - **Relevant Coursework:** Bioinformatics, Biostatistics, Cell and Tissue Engineering, Computer Programming, Genetic Engineering and Gene Therapy, Genetics of Microorganisms, Immunology Applied to Biotechnology, Molecular Biology, Omic Sciences.
  - **Additional Courses:** Jose Portilla's SQL Bootcamp on Udemy, Bulk RNA-Seq Data Analysis on Udemy.