1. Personal Information

1.1. <u>Last Name, First Name, Middle Name, Contact Information</u>

    Last Name: Peres
    First Name: Felipe
    Middle Name: Vaz

    email: felipe.vzps@gmail.com
    Website: felipevzps.github.io/
    LinkedIn: linkedin.com/in/felipevzps/

1.2. <u>Academic Affiliations and Professional Experience</u>

Jan 2024 - Present	Guest Researcher at the Center for Microbial Secondary Metabolites, Technical University of Denmark
Jan 2022 - Present	Graduate Researcher at the Computational, Evolutionary and Systems Biology Laboratory, University of São Paulo
Jan 2020 - Mar 2020	Bioinformatics Intern at Genera
2019 - 2021	Undergraduate Researcher at the Computational, Evolutionary and Systems Biology Laboratory, University of São Paulo

1.3. <u>Educational Background</u>

2022 - Present	**MSc.** in Bioinformatics at University of São Paulo Multi-genotype analyses of long-ncRNAs in sugarcane. Supervised by Dr. rer. nat. Diego Mauricio Riaño-Pachón
2018 - 2021	**BSc.** in Biotechnology at University of São Carlos

1.4. <u>Memberships</u>

2020 - 2021	International Society for Computational Biology (ISCB)
2020 - 2021	Brazilian Association of Bioinformatics and Computational Biology (AB3C)

2. Research, Scholarly, Creative and/or Professional Activities

2.2. Published Conference Proceedings

2.2.1. Refereed Conference Proceedings

PERES, F.V., RIAÑO-PACHÓN, DIEGO. M. (2021). ContFree-NGS: Removing Reads from Contaminating Organisms in Next Generation Sequencing Data. In: Stadler, P.F., Walter, M.E.M.T., Hernandez-Rosales, M., Brigido, M.M. (eds) Advances in Bioinformatics and Computational Biology. BSB 2021. Lecture Notes in Computer Science, vol 13063. Springer, Cham. https://doi.org/10.1007/978-3-030-91814-9_6

2.3. Conferences, Workshops and Talks

2.3.1. Invited Talks

PERES, F.V. Python: From zero to your first software. Python Workshop for Biological Data, State University of Campinas. 2022.

PERES, F.V. An introduction to programming for bioscientists. Genetics and Molecular Biology Meeting, State University of Campinas. 2022.

2.3.2. Refereed Presentations

I include below both the refereed presentations which I have given and those presented by a co-author

SILVA, H. R. S.; MUNOZ-PEREZ, J. M.; PERES, F. V.; RIANO-PACHON, DIEGO. M. Análises do pan-transcriptoma da cana-de-açúcar. International Symposium of Undergraduate Research, University of São Paulo. 2024

PERES, F. V.; RIANO-PACHON, DIEGO. M. Inferência e anotação do pan-transcriptoma da cana-de-açúcar. International Symposium of Undergraduate Research, University of São Paulo. 2022.

PERES, F. V.; RIANO-PACHON, DIEGO. M. Inference and annotation of the sugarcane pan-transcriptome. Intelligent Systems For Molecular Biology. 2022.

PERES, F.V.; RIANO-PACHON, DIEGO. M. Analysis of de novo transcriptome assemblies in sugarcane. International Symposium of Undergraduate Research, University of São Paulo. 2020. (**received honorable mention**)

PERES, F. V.; ROSSI, V. S.; RIANO-PACHON, DIEGO. M. Analysis of de novo transcriptome assemblies in sugarcane. Intelligent Systems for Molecular Biology. 2020.

ROSSI, V. S.; PERES, F. V.; RIANO-PACHON, DIEGO. M. In silico analysis of sugarcane SP80-3280 genes involved in transcriptional regulation and the metabolism of carbohydrates. Intelligent Systems for Molecular Biology. 2020.

2.3.3. Refereed Posters

HURTADO-LOPEZ, N.; SCHOSTAG, M. D.; LOLLE, S.; PERES, F. V.; KHODJAYAN, K.; GONZALEZ, H. M. E.; OTTO, D. J.; GRAM, L.; STRUBE, M. L. Exploring the biosynthetic potential of marine sediment microbiomes across Denmark: A multiomics approach. Danish Microbiological Society Congress, University of Copenhagen. 2024.

MUNOZ-PEREZ, J. M.; PERES, F. V.; RIANO-PACHON, DIEGO. M. Sorghum Pan-transcriptome: A new tool for bioenergy crop improvement. XIV Simpósio Científico dos Pós-Graduandos no CENA, University of São Paulo. 2023.

PERES, F. V.; RIANO-PACHON, DIEGO. M. Inferência e anotação funcional do pan-transcriptoma da cana-de-açúcar. XIII simpósio dos pós-graduandos no CENA, University of São Paulo. 2022.

SANTOS, R. A. C.; CARDOSO, A. S. O.; PERES, F. V.; MUNOZ-PEREZ, J. M.; RIANO-PACHON, DIEGO. M. Desenvolvimento do CoNekT Bioenergy, uma plataforma para mineração de dados transcriptômicos de plantas com importância em bioenergia. XIII simpósio dos pós-graduandos no CENA. 2022.

PERES, F. V.; ROSSI, V. S.; MUNOZ-PEREZ, J. M.; RIANO-PACHON, DIEGO. M. Sugarcane genomics and transcriptomics resources. XVIII Brazilian Congress of Plant Physiology and I Ibero-latinamerica of Plant Biology, Global Plant Council. 2022.

PERES, F.V; RIANO-PACHON, DIEGO. M. ContFree-NGS: Removing reads from contaminating organisms in next generation sequencing datasets. Brazilian Symposium on Bioinformatics, Federal University of Minas Gerais. 2021.

ROSSI, V. S.; PERES, F. V.; RIANO-PACHON, DIEGO. M. A computational study of genes involved in transcriptional regulation and the metabolism of carbohydrates in Sugarcane (Saccharum sp.) cultivar SP80-3280. 2020.

2.4. Completed Creative Works and Scholarship

2.4.1. Software and Applications

sugarcane_RNAome: Multi-genotype analyses of long-ncRNAs in sugarcane
Code available at: https://github.com/labbces/sugarcane_RNAome

SCPT: Inference and annotation of the sugarcane pan-transcriptome
Code available at: https://github.com/labbces/SCPT

ContFree-NGS: A very simple filter, open source software that removes sequences from contaminating organisms in your NGS dataset based on a taxonomic classification file
Software available at: https://github.com/labbces/ContFree-NGS

YAATAP: Snakemake pipeline for downloading raw RNA-seq datasets and performing transcriptome assemblies
Software available at: https://github.com/labbces/YAATAP

seabed-symphony: Pipeline for Biosynthetic Gene Cluster (BGC) identification in microbial community of marine sediments
Software available at: https://github.com/felipevzps/seabed-symphony

cavebot-fiesta: A software that automates repetitive actions in the game Tibia using real-time computer vision
Software available at: https://github.com/felipevzps/cavebot-fiesta

pesca-a-dor: Automated robot to play PokeXGames using OpenCV and PyAutoGUI
Software available at: https://github.com/felipevzps/pesca-a-dor

indeed_jobs: Automated web scraping using Selenium and BeautifulSoup to extract job listings from Indeed.com
Software available at: https://github.com/felipevzps/indeed_jobs

2.5. <u>Research Fellowships and Awards</u>

Received Graduate Research Fellowship from National Council for Scientific and Technological Development (2022)

Mendelics Challenge 2021 - Developed an automated variant calling pipeline in under 48 hours. **Awarded third place**.

International Symposium of Undergraduate Research 2020 - "Analysis of de novo transcriptome assemblies in sugarcane" **received honorable mention**.

Received Undergraduate Research Fellowship from São Paulo Research Foundation (2019)

Synthetic Biology Hackathon 2018 (BIOHACK) - Developed the project "BIOREMEDYATOR", at the largest biotechnology conference in Brazil, the "IV Encontro Nacional dos Estudantes de Biotecnologia". **Awarded second place**.

2.6. <u>Projects and Leadership</u>

Aug 2024 - Present   **Inteligência Não Artificial - INA** (Artificial Intelligence Study Consortium)
Co-founder: Engaged in regular meetings on AI, covering ML, neural networks and real-world applications. Actively contributed to hackathons and competitions, such as the Genomes to Fields (G2F), applying AI techniques to complex challenges in predictive modeling and data analysis.

Jun 2018 - Nov 2021   **Study Group in Bioinformatics and Molecular Biology**
Member: Conducted monthly meetings with 10+ bioinformatics enthusiasts, emphasizing programming languages, computational biology, and the replication of scientific paper pipelines.

Jun 2018 - Jun 2021 **Sustec Junior** (Junior Enterprise in Biotechnology)
Project Management Advisor: Implementation of new biotechnological solutions; collaboration in project planning and execution; and monitoring customer feedback.