

Robson Parmezan Bonidia

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EDUCATION

PhD Candidate in Computer Science and Computational Mathematics **SP, Brazil**
University of São Paulo - USP 2020 - Current

MSc degree in Bioinformatics **Cornélio Procópio, PR, Brazil**
Federal University of Technology - UTFPR 2018 - 2020

Specialized in Computer Networks **Cornélio Procópio, PR, Brazil**
Federal University of Technology - UTFPR 2017 - 2018

BSc degree in Mathematics **Londrina, PR, Brazil**
Centro Universitário Internacional, UNINTER 2018 - Interrupted

Associate Degree in Information Security **Ourinhos, SP, Brazil**
Faculdade de Tecnologia de Ourinhos, FATEC 2011 - 2014

PROFESSIONAL EXPERIENCE

Scholarship Researcher - University of São Paulo - USP
São Carlos, SP, Brazil 2020 - Current

Scholarship Researcher - Federal University of Technology - Paraná UTFPR
Cornélio Procópio, PR, Brazil 2018 - 2020

Invited Professor - SENAI
Londrina, PR, Brazil 2019 - 2020

Information Technology Supporter - Instituto Paranaense de Ciência do Esporte
Londrina, PR, Brazil 2017 - 2018

Scholarship Professor - Pronatec - Federal Institute of Paraná, IFPR
Jacarezinho, PR, Brazil 2015 - 2016

IT Assistant
Quatiguá, PR, Brazil 2011 - 2015

Courses taught: Algorithm Analysis, Integrator Project III (Data Science), Integrator Project IV (Data Science), Computational Intelligence, Machine Learning I, Machine Learning II, Security in Operating Systems and Computer Networks, Information Systems Audit, Information Security Principles, bioinformatics, Pattern Recognition, and Statistical Programming Language.

SCIENTIFIC PRODUCTION INDICATORS

ORCID: <https://orcid.org/0000-0003-4975-7867>

Research Gate: https://www.researchgate.net/profile/Robson_Bonidia3

Lattes CNPq: <http://lattes.cnpq.br/1572375422051077>

Personal Page: <https://bonidia.github.io/website/>

GitHub: <https://github.com/bonidia>

ACADEMIC INDICATORS

Conference papers: 7

Journal papers: 10

Abstract papers: 3

Citations: 151 - Google Scholar

H-Index: 7 - Google Scholar

RELEVANT RESEARCH RESULTS

- **IF 2021: 13.994** - BONIDIA, Robson P. et al. BioAutoML: Automated Feature Engineering and Metalearning for the Prediction of Non-Coding RNAs in Bacteria, Briefings in Bioinformatics, v. 23, n. 4, p. bbac218, 2022.
- **IF 2021: 13.994** - BONIDIA, Robson P. et al. MathFeature: feature extraction package for DNA, RNA and protein sequences based on mathematical descriptors. Briefings in Bioinformatics, v. 23, n. 1, p. bbab434, 2022.
- **IF 2021: 2.738** - BONIDIA, Robson P. et al. Information Theory for Biological Sequence Classification: A Novel Feature Extraction Technique Based on Tsallis Entropy. Entropy, v. 24, n. 10, p. 1398, 2022.
- **IF 2020: 16.971** - ALKHNBASHI, Omer S. et al. CRISPRloci: comprehensive and accurate annotation of CRISPR-Cas systems. Nucleic Acids Research, v. 49, n. W1, p. W125-W130, 2021.
- **IF 2020: 11.622** - BONIDIA, Robson P. et al. Feature extraction approaches for biological sequences: a comparative study of mathematical features. Briefings in Bioinformatics, v. 22, n. 5, p. bbab011, 2021.

AWARDS / RESEARCH GRANTS / SCHOLARSHIPS

- Google Latin America Research Awards (LARA), Google, 2021. Project: BioAutoML: Automated Feature Engineering for Classification of Biological Sequences. Elected by LARA-Google among the 24 most promising ideas in Latin America (**24 awarded projects, from a base of 700 submissions**). Scholarship: 2022-2023 (USD: 14.400,00).
- Finalists (Ideas Contest - Top 15 of 82), Falling Walls Lab Brazil 2022, DWIH São Paulo,

Falling Walls Foundation, DAAD, The German Center for Science and Innovation.

- Hollie's Hub for Good - BioFatecou: Introducing Undergraduates to Academic Research, DigitalOcean - 2023.
- Scholarship Researcher - University of São Paulo - São Carlos/Brazil (ICMC), 2020-2024. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES).
- Scholarship Researcher - Federal University of Technology - Paraná/Brazil (UTFPR), 2018-2020. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES).

DEVELOPED TOOLS/PACKAGES

- **BioAutoML: Automated Feature Engineering and Metalearning**
 - <https://github.com/Bonidia/BioAutoML>
- **MathFeature: Feature Extraction Package for Biological Sequences**
 - <https://github.com/Bonidia/MathFeature>
- **CRISPRloci: comprehensive and accurate annotation of CRISPR-Cas systems**
 - <https://github.com/Bonidia/CRISPRloci>
- **A Novel Feature Descriptor based on Tsallis Entropy**
 - <https://github.com/Bonidia/TsallisEntropy>
- **Identifying SARS-CoV-2 Sequences with Machine Learning: SARS-CoV-Predictor**
 - <https://github.com/Bonidia/SARS-CoV-Predictor-v1>
- **A Novel Decomposing Model with Evolutionary Algorithms for Feature Selection in Long Non-Coding RNAs:**
 - <https://github.com/Bonidia/FeatureSelection-FSRV>
- **Feature Extraction: A Fourier and Numerical Mapping Approach:**
 - <https://github.com/Bonidia/FourierFeatureExtraction>
- **Identification of Long Non-Coding RNAs in Plants:**
 - https://github.com/Bonidia/FeatureSelection_lncRNAs