

Robson Parmezan Bonidia

Brazilian, Ourinhos, SP, Brazil

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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

Lecturer - Fatec - Faculdade de Tecnologia de Ourinhos
Ourinhos, SP, Brazil 2021 - Current

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

Supervisor - Scientific Initiation: 6

Patents or Registrations: 2

Participation in Events: 21

Event Organization: 2

Citations: 171 - 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

- AutoAI-Pandemics, which was selected as one of the most promising proposals (**a total of 221 proposals from 47 countries following a rigorous review process (142 from Africa, 40 from Asia, 26 from LAC, 12 from MENA)**) in a global competition, held by the Global South Artificial Intelligence for Pandemic and Epidemic Preparedness and Response Network - AI4PEP - CAN\$362,500.
- 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).
- Finalist in the Higher Education Category (**Among the 10 finalists in the Higher Education Category - 2897 subscribers - BioFatecou Project**), Transformer Educator Award - Sebrae, Instituto Significare and Bett Brasil, which aims to select the most transformative projects in Brazil, 2023.
- Honorable mention to the **BioFatecou Project (more than 200 submissions) - 25th edition of the Professor Mário Palmério Top Educational Award** - ABMES - Associação Brasileira de Mantenedoras de Ensino Superior - Brasil - 2023.
- FEMS Research & Training Grant/Award - Federation of European Microbiological Societies (FEMS), 2023 (USD: 5.000,00).
- Helmholtz Visiting Researcher Grant/Award - Helmholtz Information & Data Science Academy (HIDA), 2023. Project Title: BioAutoML-Fast: End-to-End Multi-Threaded Machine Learning Package for Life Sciences.
- 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.
- Advisor to undergraduate students Ana Clara B. Medeiros et. al, 2nd place at the 1st Cambará Ideas Fair, Grace: Resume Recommendation System with Artificial Intelligence - 1st Cambará Ideas Fair - Norte Pioneiro - Paraná, Brazil, 2023.
- Advisor of undergraduate student Wagner Lopes Cardozo, 3rd place at the 1st Cambará Ideas Fair, Águeda: Artificial Intelligence for Early Detection of Breast Cancer - 1st Cambará Ideas Fair - Norte Pioneiro - Paraná, Brazil, 2023.
- 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