

Guilherme Botazzo Rozendo

Personal Data

Brazilian

Contact

Email: guilherme.botazzo@unibo.it

[LinkedIn](#)

[Google Scholar](#)

Education	University of Bologna (Jan 2023 - Present) Visiting PhD in Computer Science Advisor: Dr. Alessandra Lumini Grantee of: Coordination for the Improvement of Higher Education Personnel (CAPES), Brazil
	Sao Paulo State University (Oct 2020 - Present) PhD in Computer Science Advisor: Dr. Leandro Alves Neves Grantee of: Coordination for the Improvement of Higher Education Personnel (CAPES), Brazil
	Sao Paulo State University (Oct 2018 - Sep 2020) MS in Computer Science Thesis: Sample Entropy Signatures for Lymphoma Histological Images Classification Advisor: Dr. Leandro Alves Neves Grantee of: Coordination for the Improvement of Higher Education Personnel (CAPES), Brazil
	Sao Paulo State University (Mar 2014 - Dec 2017) BS in Computer Science Thesis: Multiscale Entropy and Texture Signatures for Classification of Lymphoma Histological Images Advisor: Dr. Leandro Alves Neves Grantee of: National Council for Scientific and Technological Development (CNPq), Brazil
Awards	“Local Peoples' Choice Winner” and “Global Nominee”, NASA Space Apps Challenge, International Space Apps Challenge (2019) (https://2019.spaceappschallenge.org/challenges/living-our-world/bloom-or-not-bloom/teams/zzzgrubi/project)
Teaching Experience	Sao Paulo State University (Aug 2021 - Oct 2021) Lecturer Algorithm design and analysis I taught the subjects: Algebra review, recurrence relation, asymptotic functions (Big-O notation and others), NP-complete problems and reducibility, sorting

algorithms, search algorithms, random algorithms, greedy algorithms, dynamic programming and algorithms for graphs.

Sao Paulo State University

(Jun 2020 - Aug 2020)

Lecturer

Data Structure I and Data Structure Laboratory I

I taught the subjects: Abstract Data Types; Linear Data Structures: Stacks, Queues, Circular Queues, Linked Lists; Nonlinear Data Structures: Binary Trees, Search Trees, Balanced Trees; Priority Graphs and Queues.

Sao Paulo State University

(Nov 2018 - Mar 2019)

Lecturer

Data Structure II

I taught the subjects: Primary and secondary storage; memory management; File Systems; File Management; Examples of File Systems; Indexing structures; External sorting methods.

Sao Paulo State University

(Jul 2018 - Dec 2018)

Graduate Teaching Assistant

Data Structure Laboratory II

I supervised and assisted students in developing practical activities related to the Data Structure II course.

- Publications
- Silva, A. B., **Rozendo, G. B.**, Tosta, T. A., Martins, A. S., Loyola, A. M., Cardoso, S. V., ... & do Nascimento, M. Z. (2023, June). CNN Ensembles for Nuclei Segmentation on Histological Images of OED. In *2023 IEEE 36th International Symposium on Computer-Based Medical Systems (CBMS)* (pp. 601-604). IEEE.
- Pereira, D. C., Longo, L. C., Tosta, T. A., Martins, A. S., Silva, A. B., **Rozendo, G. B.**, ... & do Nascimento, M. Z. (2023, June). Handcrafted features vs deep-learned features: Hermite Polynomial Classification of Liver Images. In *2023 IEEE 36th International Symposium on Computer-Based Medical Systems (CBMS)* (pp. 495-500). IEEE.
- Miguel, P. L., Cansian, A. M., **Rozendo, G. B.**, Medalha, G. C., do Nascimento, M. Z., & Neves, L. A. (2023, January). An Investigation of Deep-Learned Features for Classifying Radiographic Images of COVID-19. In *International Conference on Enterprise Information Systems, ICEIS-Proceedings* (pp. 675-682).
- Neves, L. A., Martinez, J. M. C., Longo, L. H. D. C., Roberto, G. F., Tosta, T. A. A., Faria, P. R. D., ... & **Rozendo, G. B.** (2023). Classification of H&E images via CNN models with XAI approaches, deepdream representations and multiple classifiers. In *Proceedings*.
- Roberto, G. F., Neves, L. A., da Costa Longo, L. H., **Rozendo, G. B.**, Tosta, T. A. A., de Faria, P. R., ... & do Nascimento, M. Z. (2022). Percolation Features: An approach for evaluating fractal properties in colour images. *Software Impacts*, 14, 100387.
- Rozendo, G. B.**, do Nascimento, M. Z., Roberto, G. F., de Faria, P. R., Silva, A. B., Tosta, T. A. A., & Neves, L. A. (2022). Sample Entropy Signatures: a new way to interpret SampEn values. *Software Impacts*.

Dos Santos, L. F. S., **Rozendo, G. B.**, do Nascimento, M. Z., Tosta, T. A. A., Longo, L. H. C. & Neves, L. A. (2022, June). Multidimensional shannon entropy (HM) as an approach to classify H&E colorectal images. In 2022 IEEE International Conference on Systems, Signals and Image Processing (IWSSIP). IEEE.

Jaqueline Junko Tenguam, **Guilherme Botazzo Rozendo**, Guilherme Freire Roberto, Marcelo Zanchetta do Nascimento, Alessandro S. Martins, Leandro Alves Neves (2022) Multidimensional and Multiscale Higuchi Dimension (mmDH) [Source Code]. <https://doi.org/10.24433/CO.1638115.v1>

Rozendo, G. B., do Nascimento, M. Z., Roberto, G. F., de Faria, P. R., Silva, A. B., Tosta, T. A. A., & Neves, L. A. (2022). Classification of non-Hodgkin lymphomas based on sample entropy signatures. *Expert Systems with Applications*, 117238.

Guilherme Botazzo Rozendo, Marcelo Zanchetta do Nascimento, Guilherme Freire Roberto, Paulo Rogério de Faria, Adriano Barbosa Silva, Thaína Aparecida Azevedo Tosta, Leandro Alves Neves (2022) Classification of Non-Hodgkin Lymphomas Based on Sample Entropy Signatures [Source Code]. <https://doi.org/10.24433/CO.3053768.v1>

Tenguam, J. J., **Rozendo, G. B.**, Roberto, G. F., do Nascimento, M. Z., Martins, A. S., & Neves, L. A. (2020, December). Multidimensional and multiscale Higuchi dimension for the analysis of colorectal histological images. In 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM) (pp. 2833-2839). IEEE.

Candelero, D., Roberto, G. F., do Nascimento, M. Z., **Rozendo, G. B.**, & Neves, L. A. (2020, December). Selection of CNN, Haralick, and Fractal Features Based on Evolutionary Algorithms for Classification of Histological Images. In 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM) (pp. 2709-2716). IEEE.

Dos Santos, L. F. S., Neves, L. A., **Rozendo, G. B.**, Ribeiro, M. G., do Nascimento, M. Z., & Tosta, T. A. A. (2018). Multidimensional and fuzzy sample entropy (SampEnMF) for quantifying H&E histological images of colorectal cancer. *Computers in biology and medicine*, 103, 148-160.

Presentations "CNN Ensembles for Nuclei Segmentation on Histological Images of OED", 2023 IEEE 36th International Symposium on Computer-Based Medical Systems (CBMS), L'Aquila, Italy

"Handcrafted features vs deep-learned features: Hermite Polynomial Classification of Liver Images", 2023 IEEE 36th International Symposium on Computer-Based Medical Systems (CBMS), L'Aquila, Italy

"An Investigation of Deep-Learned Features for Classifying Radiographic Images of COVID-19", 25th International Conference on Enterprise Information Systems (ICEIS), Prague, Czech Republic

"Classification of H&E Images via CNN Models with XAI Approaches, DeepDream Representations and Multiple Classifiers", 25th International Conference on Enterprise Information Systems (ICEIS), Prague, Czech Republic

"Multidimensional and multiscale Higuchi dimension for the analysis of colorectal

histological images”, International Conference on Bioinformatics and Biomedicine (BIBM), Seoul, South Korea (2020).

“Selection of CNN, Haralick, and Fractal Features Based on Evolutionary Algorithms for Classification of Histological Images”, International Conference on Bioinformatics and Biomedicine (BIBM), Seoul, South Korea (2020).

“BloomTool: prediction of algae bloom in your hands”, NASA Space Apps Challenge, Sao Jose do Rio Preto, Brazil (2019).

“Multiscale Entropy and Texture Signatures for Breast Infrared Images Classification”, UNESP Scientific Initiation Congress, Sao Jose do Rio Preto, Brazil (2017).

Activities

Titular Member of the Departmental Council of the Department of Computer Science and Statistics at UNESP, Sao Jose do Rio Preto, Brazil (Oct 2018 - Dec 2019).

Titular Member of the Course Council of the Bachelor of Computer Science at UNESP, Sao Jose do Rio Preto, Brazil (May 2016 - May 2017).

Volunteer at the “Teletandem Brasil” project (teletandembrasil.org) (2017).

Vice president of the "XXVI Computer Science Week" event production, Sao Jose do Rio Preto, Brazil (semac.cc) (2016).

Marketing assistant in the "XXV Computer Science Week" event production, Sao Jose do Rio Preto, Brazil (semac.cc) (2015).