Curriculum Vitae

October 3, 2023

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Education

2010 – 2013 **Ph.D. in Computer Science, Université de Cergy-Pontoise, France**

2009 – 2013 **Ph.D. in Computer Science, University of Campinas, Brazil**

2007 – 2009 **M.Sc. Computer Science, University of Campinas, Brazil**.

2003 – 2006 **B.Sc. Computer Science, Universidade Estadual de Mato Grosso do Sul, Brazil**.

Professional Experience

2023 – · · · · **Assistant Professor/Lecturer (Full-time).** Department of Computer Science, University of Sheffield, UK.

2022 – 2023 **Assistant Professor/Lecturer (Full-time).** Computing Science & Mathematics, University of Stirling, UK.

2016 – 2022 **Associate Professor (Full-time).** Department of Computer Science, Universidade Federal de Minas Gerais, Brazil.

2013 – 2016 **Assistant Professor (Full-time).** Department of Computer Science, Universidade Federal de Minas Gerais, Brazil.

2013 – 2013 **Postdoctoral Research Assistant (Full-time).** Institute of Computing, University of Campinas, Brazil.

2007 – 2010 **Teaching Assistant (Part-time).** Institute of Computing, University of Campinas, Brazil.

Current Research Activities

Principal Investigator (Projects Awarded)

2021 – · · · · **WildPixels - Dense Labeling of Remote Sensing Images in the Wild**. In this project, we will address the challenges for the effective use of supervised learning in dense pixel labeling through the study and development of new approaches to increase the robustness of the models to class imbalance, underrepresentation of some classes, and presence of pixels of unknown classes during the prediction phase. The effectiveness and suitability of the proposed methods will be evaluated in two main applications: detection of rural roads in the Amazon rainforest and Cerrado savanna; and monitoring of urban housing conditions and their relationship with outbreaks of Dengue disease.
Funding: *Serrapilheira Institute.*

Current Research Activities (continued)

2018 – · · · ·

LittleBigData - Pattern recognition in large image databases using small annotated data sets. This project proposes the development of new approaches to deal with pattern recognition in applications that require the processing of large sets of images but which have restrictions regarding the number of labeled samples available. The research focus efforts on: (1) the study and development of techniques for transferring knowledge from pre-existing bases as a way to enrich the initial sample set; (2) the study of image indexing algorithms and structures to ensure scalability of the developed approaches; and (3) developing approaches based on active learning to assist expert users in annotating relevant samples.
Funding: *Minas Gerais Research Foundation (FAPEMIG).*

Research Funding History

Principal Investigator (Grants)

2021 – · · · ·

WildPixels - Dense Labeling of Remote Sensing Images in the Wild. Funding: *Serrapilheira Institute*. Total: BRL $ 500,000.00 (≈ USD$ 95.348,94 in July/2021) - highly competitive.

2020 – 2021

CAD-COVID-19 - Monitoring and diagnostic aid of COVID-19 Using Chest X-rays and deep learning. Funding: *Minas Gerais Research Foundation (FAPEMIG)*. Total: BRL $ 108,000.00 (≈ EUR $ 19,285.00 in July/2020) - competitive.

Development of AI methodologies for audit objects related to the environmental monitoring. Funding: *Organization of Latin American and Caribbean Supreme Audit Institutions (OLACEFS)*. Total: USD $ 18,000.00.

2018 – 2022

Deep Learning Representations for Large Scale Geographic Mapping. Funding: *Brazilian National Council for Scientific and Technological Development (CNPq)* - Faixa B. Total: BRL $ 40,000.00 (≈ EUR $ 9,000.00 in June/2018) - competitive.

2018 – · · · ·

LittleBigData - Pattern recognition in large image databases using small annotated data sets. Funding: *Minas Gerais Research Foundation (FAPEMIG)* – Universal. Total: BRL $ 53,235.00 (≈ EUR $ 12,000.00 in June/2018)- competitive.

2018 – 2019

GeoControle - Detection of Irregularity Patterns through Artificial Intelligence Systems. Funding: *German Corporation for International Cooperation (GIZ)*. Total: BRL $ 498,347.92 (≈ EUR $ 112,400.00 in June/2018).

2015 – 2016

Golden Retrieval - Content-based Image Retrieval for Mobile Devices. Funding: *LG Electronics*. Total: BRL $ 659,795.64 (≈ EUR $ 215,600.00 in January/2015) - industry.

2014 – 2017

GeoFusion - Automatic creation of thematic maps using data from multiple sensors. Funding: *Brazilian National Council for Scientific and Technological Development (CNPq)* - Faixa A. Total: BRL $ 20,995.00 (≈ EUR $ 6,500.00 in January/2014) - competitive.

Interactive Mapping of Regions By Using Multi-Scale Approaches. Funding: *Minas Gerais Research Foundation (FAPEMIG)* – First Project Program. Total: BRL $ 25.672,50 (≈ EUR $ 8,000.00 in January/2014) - competitive.

Research Funding History (continued)

Co-Investigator (Grants)

2021 – · · · · **On the Analysis of Urban Computing Heterogeneous Data.** Funding: *São Paulo Research Foundation (FAPESP)*. Total: BRL $ 229,081.80 (≈ EUR $ 37,400.00) - competitive.

2020 – · · · · **Use of remote sensing and artificial intelligence to predict high risk areas for Aedes aegypti infestation and Arbovirus.** Funding: *São Paulo Research Foundation (FAPESP)*. Total: BRL $ 222,021.86 (≈ EUR $ 36,000.00)- competitive.

2018 – · · · · **Intelligent Monitoring of Water Quality in Hydroelectric Reservoirs Through the Development of a Photogrammetric Algorithm.** Funding: *Energy Company of Minas Gerais — CEMIG*. Total: BRL $ 5,487,729.32 (≈ EUR $ 1,250,000.00 in June/2018) - industry.

2018 – 2020 **SMS: Research and Development of an Intelligent Surveillance System Applied to Oil Platforms.** Funding: *Brazilian Petroleum Corporation — Petrobras*. Total: BRL $ 4,692,538.09 (≈ EUR $ 1,070,000.00 in June/2018)- industry.

2016 – 2016 **Keymaker: Activity Recognition based on Contextual Information.** Funding: *Hewlett-Packard Brasil*. Total: BRL $ 868,155.08 (≈ EUR $ 200,000.00 in January/2016) - industry.

2014 – 2018 **DeepEyes: Visual Computing and Machine Intelligence Solutions for Computer Forensics and Electronic Surveillance.** Funding: *Brazilian Coordination of Higher Education and Graduate Training (CAPES Foundation)*. Total: BRL $ 698.165,40 (≈ EUR $ 215,000.00 in January/2014) - competitive.

Towards an understanding of tipping points within tropical South American biomes. Funding: *FAPESP-Microsoft Research Virtual Institute*. Total: BRL $ 192,419.19 (≈ EUR $ 58,000.00 in January/2014) - competitive.

Combining new Technologies to monitor phenology from leaves to ecosystems. Funding: *FAPESP-Microsoft Research Virtual Institute*. Total: BRL $ 606.107,48 (≈ EUR $ 186,000.00 in January/2014) + USD $ 267,951.36 - competitive.

Graduate Students Supervision

Main Advisor

- Edemir Ferreira de Andrade Junior, Ph.D. 2023. Current position: industry.
- Hugo Neves de Oliveira, Ph.D. 2020. Current position: Assistant Professor at UFV, Brazil.
- Keiller Nogueira, Ph.D. 2019. Current position: Lecturer at University of Stirling, UK.
- Bruno Alemão Monteiro, M.Sc. 2023. Current position: industry.
- Arthur Bernardo Assunção Pinto, M.Sc. 2023. Current position: industry.
- Marcos Felipe Vendramini Carvalho, M.Sc. 2022. Current position: industry.
- Pedro Henrique Araújo Pinto, M.Sc. 2022. Current position: industry.
- Gabriel Lucas Machado, M.Sc. 2021. Current position: industry.
- Érico Marco Dias Pereira, M.Sc. 2021. Current position: Ph.D. candidate at UFMG, Brazil.
- Jéssica Ferreira Soares, M.Sc. 2021. Current position: industry.

Graduate Students Supervision (continued)

- Pedro Henrique Targino Gama, M.Sc. 2021. Current position: Ph.D. candidate at UFMG, Brazil.
- Caio Cesar V. da Silva, M.Sc. 2019. Current position: Ph.D. candidate at Univ. of South Florida, USA.
- João José de Macedo Neto, M.Sc. 2019. Current position: Ph.D. candidate at UFMG, Brazil.
- Matheus Barros Pereira, M.Sc. 2019. Current position: Ph.D. candidate at UFMG, Brazil.
- Eduardo de Araújo Tavares, M.Sc. 2018. Current position: industry.
- Rafael Marlon Pereira Costa Baeta Carreira, M.Sc. 2017. Current position: industry.
- Tiago Moreira Hübner Cançado Santana, M.Sc. 2017. Current position: industry.
- Edemir Ferreira de Andrade Junior, M.Sc. 2016. Current position: Ph.D. candidate at UFMG, Brazil.
- Ramon F. Pessoa, M.Sc. 2015. Current position: Ph.D. candidate at McGill University, Canada.

Co-Advisor

- Carlos Antônio Caetano Jr, Ph.D. 2020. Current position: industry.
- Virgínia Fernandes Mota, Ph.D. 2018. Lecturer at UFMG, Brazil.
- Anselmo Castelo Branco Ferreira, Ph.D. 2016. Current position: PDRA at University of Siena, Italy.
- Pedro Henrique Valois, M.Sc. 2022. Current position: Ph.D. candidate at University of Tsukuba, Japan.
- Agnaldo A. Esmael, M.Sc. 2015. Current position: Ph.D. candidate at University of Campinas, Brazil.
- Keiller Nogueira, M.Sc. 2015. Current position: Lecturer at University of Stirling, UK.
- John Edgar Vargas Muñoz, M.Sc. 2015. Current position: industry.

Miscellaneous Experience

Distinctions

2016 – 2022 — **Productivity Research Scholarship (Level 2)**, Brazilian National Council for Scientific and Technological Development (CNPq).

Grantee Scholarships

2021 — **Post-doc Fellowship.** Supervisor: Prof. Ibrahim A. Hameed (NTNU, Norway). Funding: *ERCIM Alain Bensoussan Fellowship Programme, European Research Consortium for Informatics and Mathematics (ERCIM).* - competitive. Note: Not implemented due to COVID-19 travel restrictions in early 2021.

2013 – 2013 — **Post-doc Fellowship, Multiscale Classification By Using Optimum Path-Forest.** Funding: *São Paulo Research Foundation (FAPESP)* - competitive.

2009 – 2013 — **Ph.D. Fellowship, Semi-automatic classification of regions in remote sensing images.** Funding: *São Paulo Research Foundation (FAPESP)* - competitive.

2007 – 2009 — **M.Sc. Fellowship, Semi-automatic recognition and vectorization of regions in remote sensing images.** Funding: *São Paulo Research Foundation (FAPESP)* - competitive.

Awards and Achievements

2020 — **Best Ph.D. Thesis Award**, "Going Deep into Remote Sensing Spatial Feature Learning" by student Keiller Nogueira, SIBGRAPI 2020 - 33rd Conference on Graphics, Patterns and Images.

2017 — **Best Paper Award**, "Activity Recognition based on a Magnitude-Orientation Stream Network", SIBGRAPI 2017 - 30th Conference on Graphics, Patterns and Images.

Miscellaneous Experience (continued)

- **Honorable Mention**, Workshop of Undergraduate Works (WUW), "Image Representation Learning by Color Quantization Optimization" by student Erico Pereira, SIBGRAPI 2017 - 30th Conference on Graphics, Patterns and Images.

2016
- **Honorable Mention**, Workshop of Works in Progress (WiP), "Contextual Description of Superpixels for Aerial Urban Scenes Classification" by MSc student Tiago Moreira, SIBGRAPI 2016 - 29th Conference on Graphics, Patterns and Images.

2013
- **Best PhD Thesis**, Institute of Computing, University of Campinas, Brazil.
- **2nd Place Award - PhD Category.**, Workshop of Theses and Dissertations, SIBGRAPI 2013 - 26th Conference on Graphics, Patterns and Images.

2009
- **Best Master Thesis.**, Institute of Computing, University of Campinas, Brazil.

2006
- **Undergraduate Outstanding Student Award.** Brazilian Computer Society, Brazil.

Professional Membership

- Senior Member, Institute of Electrical and Electronics Engineers (IEEE).
- Member, Brazilian Computer Society (SBC).

Professional Service

- Associate Editor, IEEE Geoscience and Remote Sensing Letters (since 2022)
- Co-Chair for the ISPRSS WG4 AI/ML for Geospatial Data (since 2022)
- Program Chair, SIBGRAPI – Conference on Graphics, Patterns and Images (2022).
- Member of Technical Program Committee, ICPR - International Conference on Pattern Recognition (2020 and 2022).
- Member of Technical Program Committee, CBMI - International Conference on Content-Based Multimedia Indexing (2018 - 2022).
- Member of Technical Program Committee, SIBGRAPI – Conference on Graphics, Patterns and Images (2014 - 2022).
- Member of Technical Program Committee, CIARP – Iberoamerican Congress on Pattern Recognition (2016 - 2019).
- Member of Technical Program Committee, MCPR – Mexican Congress on Pattern Recognition (2018 - 2022).
- Guest Editor, "Special Section on SIBGRAPI 2022 – 35th Conference on Graphics, Patterns and Images" of Computer & Graphics (2023).
- Guest Editor, "Best papers of SIBGRAPI 2022 – Conference on Graphics, Patterns and Images" Special Issue of Pattern Recognition Letters (2023).
- Guest Editor, "Computer Vision for Earth Observation" Special Issue of International Journal of Applied Earth Observation and Geoinformation (2022).
- Lead Guest Editor, "Pattern Recognition and Image Processing for Geoscience and Remote Sensing of the SIBGRAPI 2020 – Conference on Graphics, Patterns and Images" Special Stream of IEEE Geoscience and Remote Sensing Letters (2020).
- Guest Editor, "Pattern Recognition and Image Processing for Geoscience and Remote Sensing of the SIBGRAPI 2019 – Conference on Graphics, Patterns and Images" Special Stream of IEEE Geoscience and Remote Sensing Letters (2019) .
- Guest Editor, "Pattern Recognition and Image Processing for Geoscience and Remote Sensing of the SIBGRAPI 2017 – Conference on Graphics, Patterns and Images" Special Stream of IEEE Geoscience and Remote Sensing Letters (2017) .

Miscellaneous Experience (continued)

- Reviewer for the following journals: Elsevier Pattern Recognition (2015-current); IEEE Transactions on Image Processing (2013-current); IEEE Transactions on Geoscience and Remote Sensing (2014-current); IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (2011-current); Multimedia Tools and Applications (2017-current); Elsevier Information Sciences (2014-2018); Elsevier Journal of Visual Communication and Image Representation (2013-2015); IEEE Signal Processing Letters (2014-2015); EURASIP Journal on Advances in Signal Processing (2014); and EURASIP Journal on Image and Video Processing (2015).
- Review of research proposals for the following agencies: Brazilian National Council for Scientific and Technological Development – CNPq (2015, 2019); ETH Zurich Research Commission (2020); Netherlands Organisation for Scientific Research (2018); and Belgian Science Policy Office (2015).

Miscellaneous Experience (continued)

Departmental Services (at University of Stirling)

2022–· · · · Deputy Chief Examiner, Academic Integrity Panel.

Departmental Services (at UFMG)

2019–2020 Member, Computer Science Graduate Program Committee.

Member, Ph.D. Admissions Committee.

2016–2018 Member, Advisory Board for the Information Systems BSc.

2016–2020 Member, Chamber of the Department of Computer Science.

2016–2022 Chair, M.Sc. Admissions Committee for the "Computer Vision, Robotics and Graphics" area.

2016 Member, University interchange program examining committee.

2015 Member, University Undergraduate Exhibit evaluation committee.

Research Publications

Journal Articles

1. Machado, G., Pereira, M. B., Nogueira, K., & **dos Santos**, **J. A.** (2023). Facing the void: Overcoming missing data in multi-view imagery. *IEEE Access*, *11*, 12546–12553.
2. Medeiros, T., Martinez, J. A. C., Oliveira, H., **dos Santos**, **J. A.**, & Feitosa, R. Q. (2023). Outlier exposure for open set crop recognition from multitemporal image sequences [To appear]. *IEEE Geoscience and Remote Sensing Letters*.
3. Barros, P., Queiroz, F., Figueiredo, F., **dos Santos**, **J. A.**, & Ramos, H. (2022). A new similarity space tailored for supervised deep metric learning. *ACM Transactions on Intelligent Systems and Technology*, *14*(1), 1–25.
4. Gama, P. H. T., Oliveira, H. N., Marcato, J., & **dos Santos**, **J. A.** (2022). Weakly supervised few-shot segmentation via meta-learning. *IEEE Transactions on Multimedia*.
5. Martinez, J. A. C., Oliveira, H., **dos Santos**, **J. A.**, & Feitosa, R. Q. (2022). Open set semantic segmentation for multitemporal crop recognition. *IEEE Geoscience and Remote Sensing Letters*, *19*, 1–5.
6. Monteiro, B. A., Oliveira, H., & **dos Santos**, **J. A.** (2022). Self-supervised learning for seismic image segmentation from few-labeled samples. *IEEE Geoscience and Remote Sensing Letters*, *19*, 1–5.
7. Cunha, H., Sclauser, B., Wildemberg, P., Fernandes, E., **dos Santos**, **J. A.**, de Oliveira Lage, M., Lorenz, C., Barbosa, G., Quintanilha, J., & Chiaravalloti-Neto, F. (2021). Water tank and swimming pool detection based on remote sensing and deep learning: Relationship with socioeconomic level and applications in dengue control. *PLOS ONE*, *16*.
8. Machado, G., Ferreira, E., Nogueira, K., Oliveira, H., Brito, M., Gama, P. H. T., & **dos Santos**, **J. A.** (2021). Airound and cv-brct: Novel multiview datasets for scene classification. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *14*, 488–503.
9. Martins, J. A. C., Nogueira, K., Osco, L. P., Gomes, F. D. G., Furuya, D. E. G., Gonçalves, W. N., Santana, D. A., Ramos, A. P. M., Liesenberg, V., **dos Santos**, **J. A.**, de Oliveira, P. T. S., & Junior, J. M. (2021). Semantic segmentation of tree-canopy in urban environment with pixel-wise deep learning. *Remote Sensing*, *13*(16).
10. Nogueira, K., Chanussot, J., Dalla Mura, M., & **dos Santos**, **J. A.** (2021). An introduction to deep morphological networks. *IEEE Access*, *9*, 114308–114324.

11 Oliveira, H. N., da Silva, C. C. V., Machado, G. L. S., Nogueira, K., & **dos Santos**, **J. A.** (2021). Fully convolutional open set segmentation. *Machine Learning*, 1–52.

12 Osco, L. P., Nogueira, K., Ramos, A. P. M., Pinheiro, M. M. F., Furuya, D. E. G., Gonçalves, W. N., de Castro Jorge, L. A., Marcato, J., & **dos Santos**, **J. A.** (2021). Semantic segmentation of citrus-orchard using deep neural networks and multispectral uav-based imagery. *Precision Agriculture*, 1–18.

13 Pereira, E. M., Torres, R. d. S., & **dos Santos**, **J. A.** (2021). A genetic algorithm approach for image representation learning through color quantization. *Multimedia Tools and Applications*, 15315–15350.

14 Albarracin, J. F. H., Oliveira, R. S., Hirota, M., **dos Santos**, **J. A.**, & da Silva Torres, R. (2020). A soft computing approach for selecting and combining spectral bands. *Remote Sensing*, *12*(14), 2267.

15 Mota, V. F., de Oliveira, H. N., Scalzo, S., Dittz, D., Santos, R. J., **dos Santos**, **J. A.**, & de Albuquerque Araújo, A. (2020). From video pornography to cancer cells: A tensor framework for spatiotemporal description. *Multimedia Tools and Applications*, *79*(19-20), 13919–13949.

16 Nogueira, K., Machado, G. L. S., Gama, P. H. T., da Silva, C. C. V., Balaniuk, R., & **dos Santos**, **J. A.** (2020). Facing erosion identification in railway lines using pixel-wise deep-based approaches. *Remote Sensing*, *12*(4), 739.

17 Oliveira, H. N., Ferreira, E., & **dos Santos**, **J. A.** (2020). Truly generalizable radiograph segmentation with conditional domain adaptation. *IEEE Access*, *8*, 84037–84062.

18 Oliveira, H., Mota, V., Machado, A. M., & **dos Santos**, **J. A.** (2020). From 3d to 2d: Transferring knowledge for rib segmentation in chest x-rays. *Pattern Recognition Letters*, *140*, 10–17.

19 Caetano, C., de Melo, V. H. C., Brémond, F., **dos Santos**, **J. A.**, & Schwartz, W. R. (2019). Magnitude-orientation stream network and depth information applied to activity recognition. *Journal of Visual Communication and Image Representation*, *63*, 102596.

20 Menini, N., Almeida, A. E., Lamparelli, R. A. C., le Maire, G., **dos Santos**, **J. A.**, Pedrini, H., Hirota, M., & da Silva Torres, R. (2019). A soft computing framework for image classification based on recurrence plots. *IEEE Geoscience and Remote Sensing Letters*, *16*(2), 320–324.

21 Nogueira, K., **dos Santos**, **J. A.**, Menini, N., Silva, T. S. F., Morellato, L. P. C., & da Silva Torres, R. (2019). Spatio-temporal vegetation pixel classification by using convolutional networks. *IEEE Geoscience and Remote Sensing Letters*, *16*(10), 1665–1669.

22 Nogueira, K., Mura, M. D., Chanussot, J., Schwartz, W. R., & **dos Santos**, **J. A.** (2019). Dynamic multicontext segmentation of remote sensing images based on convolutional networks. *IEEE Transactions on Geoscience and Remote Sensing*, *57*(10), 7503–7520.

23 Esmael, A. A., **dos Santos**, **J. A.**, & da Torres, R. (2018). On the ensemble of multiscale object-based classifiers for aerial images: A comparative study. *Multimedia Tools and Applications*, 1–28.

24 Nogueira, K., Fadel, S. G., Dourado, I. C., Werneck, R. d., Muñoz, J. A. V., Penatti, O. A. B., Calumby, R. T., Li, L. T., **dos Santos**, **J. A.**, & Torres, R. d. (2018). Exploiting convnet diversity for flooding identification. *IEEE Geoscience and Remote Sensing Letters*, *15*(9), 1446–1450.

25 Alberton, B., da S. Torres, R., Cancian, L. F., Borges, B. D., Almeida, J., Mariano, G. C., **dos Santos**, **J. A.**, & Morellato, L. P. C. (2017). Introducing digital cameras to monitor plant phenology in the tropics: Applications for conservation. *Perspectives in Ecology and Conservation*, *15*(2), 82–90.

26 Ferreira, A., Bondi, L., Baroffio, L., Bestagini, P., Huang, J., **dos Santos**, **J. A.**, Tubaro, S., & Rocha, A. (2017). Data-driven feature characterization techniques for laser printer attribution. *IEEE Transactions on Information Forensics and Security*, *12*(8), 1860–1873.

27 Nogueira, K., Penatti, O. A. B., & **dos Santos**, **J. A.** (2017). Towards better exploiting convolutional neural networks for remote sensing scene classification. *Pattern Recognition*, *61*, 539–556.

28 Ferreira, A., Felipussi, S. C., Alfaro, C., Fonseca, P., Vargas-Munoz, J. E., **dos Santos**, **J. A.**, & Rocha, A. (2016). Behavior knowledge space-based fusion for copy-move forgery detection. *IEEE Transactions on Image Processing*, *25*(10), 4729–4742.

29 Almeida, J., **dos Santos**, **J. A.**, Alberton, B., Morellato, L. P. C., & da S. Torres, R. (2016). Phenological visual rhythms: Compact representations for fine-grained plant species identification. *Pattern Recognition Letters*, *81*, 90–100.

30 Ferreira, A., **dos Santos**, **J. A.**, & Rocha, A. (2016). Multi-directional and multi-scale perturbation approaches for blind forensic median filtering detection. *Intelligent Data Analysis*, *20*(s1), S17–S36.

31 Nogueira, K., Veloso, A. A., & **dos Santos**, **J. A.** (2016). Pointwise and pairwise clothing annotation: Combining features from social media. *Multimedia Tools and Applications*, *75*(7), 4083–4113.

32 Almeida, J., **dos Santos**, **J. A.**, Miranda, W. O., Alberton, B., Morellato, L. P. C., & da Silva Torres, R. (2015). Deriving vegetation indices for phenology analysis using genetic programming. *Ecological Informatics*, *26*(3), 61–69.

33 dos Santos, L. C. B., Guimarães, S. J. F., & **dos Santos**, **J. A.** (2015). Efficient unsupervised band selection through spectral rhythms. *IEEE J. Sel. Top. Signal Process.*, *9*(6), 1016–1025.

34 Ferreira, A., Navarro, L. C., Pinheiro, G., **dos Santos**, **J. A.**, & Rocha, A. (2015). Laser printer attribution: Exploring new features and beyond. *Forensic science international*, *247*, 105–125.

35 Almeida, J., **dos Santos**, **J. A.**, Alberton, B., da S. Torres, R., & Morellato, L. P. C. (2014). Applying machine learning based on multiscale classifiers to detect remote phenology patterns in cerrado savanna trees. *Ecological Informatics*, *23*, 49–61.

36 **dos Santos**, **J. A.**, Penatti, O. A. B., Gosselin, P., Falcão, A. X., Philipp-Foliguet, S., & da Silva Torres, R. (2014a). Efficient and effective hierarchical feature propagation. *IEEE J. Sel. Top. Appl. Earth Obs. Remote. Sens.*, *7*(12), 4632–4643.

37 Faria, F. A., **dos Santos**, **J. A.**, Rocha, A., & da Silva Torres, R. (2014). A framework for selection and fusion of pattern classifiers in multimedia recognition. *Pattern Recognition Letters*, *39*, 52–64.

38 Faria, F. A., Pedronette, D. C. G., **dos Santos**, **J. A.**, Rocha, A., & da Silva Torres, R. (2014). Rank aggregation for pattern classifier selection in remote sensing images. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *7*(4), 1103–1115.

39 Nakamura, R. Y. M., Fonseca, L. M. G., **dos Santos**, **J. A.**, da Silva Torres, R., Yang, X., & Papa, J. P. (2014). Nature-inspired framework for hyperspectral band selection. *IEEE Transactions on Geoscience and Remote Sensing*, *52*(4), 2126–2137.

40 **dos Santos**, **J. A.**, Gosselin, P., Philipp-Foliguet, S., Torres, R., & Falcão, A. X. (2013). Interactive multiscale classification of high-resolution remote sensing images. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*.

41 da Silva, A. T., **dos Santos**, **J. A.**, Falcão, A. X., Torres, R. d. S., & Magalhães, L. P. (2012). Incorporating multiple distance spaces in optimum-path forest classification to improve feedback-based learning. *Computer Vision and Image Understanding*, *116*(4), 510–523.

42 **dos Santos**, **J. A.**, Gosselin, P., Philipp-Foliguet, S., Torres, R., & Falcão, A. X. (2012). Multiscale classification of remote sensing images. *IEEE Transactions on Geoscience and Remote Sensing*, *50*(10), 3764–3775.

43 **dos Santos**, **J. A.**, Ferreira, C. D., da S. Torres, R., Gonçalves, M. A., & Lamparelli, R. A. C. (2011). A relevance feedback method based on genetic programming for classification of remote sensing images. *Information Sciences*, *181*(13), 2671–2684.

44 Ferreira, C., **dos Santos**, **J. A.**, Torres, R. d. S., Gonçalves, M. A., Rezende, R. C., & Fan, W. (2011). Relevance feedback based on genetic programming for image retrieval. *Pattern Recognition Letters*, *32*(1), 27–37.

Conference Proceedings

1 Pinto, A., Oliveira, H., Machado, A., & **dos Santos**, **J. A.** (2023). Coda-few: Few shot domain adaptation for medical image semantic segmentation, In *International conference on computer vision theory and applications (visapp)*.

2 Laranjeira da Silva, C., Macedo, J., Avila, S., & **dos Santos**, **J. A.** (2022). Seeing without looking: Analysis pipeline for child sexual abuse datasets, In *2022 acm conference on fairness, accountability, and transparency*.

3 Nunes, I. M., Poggi, M., Oliveira, H., Pereira, M. B., & **dos Santos**, **J. A.** (2022). Deep open-set segmentation in visual learning, In *2022 35th sibgrapi conference on graphics, patterns and images (sibgrapi tutorials)*. IEEE.

4 Nunes, I., Pereira, M. B., Oliveira, H., **dos Santos**, **J. A.**, & Poggi, M. (2022). Conditional reconstruction for open-set semantic segmentation, In *Ieee international conference on image processing*.

5 Oliveira, H., Cesar, R. M., Gama, P. H., & **dos Santos**, **J. A.** (2022). Domain generalization in medical image segmentation via meta-learners, In *2022 35th sibgrapi conference on graphics, patterns and images (sibgrapi tutorials)*. IEEE.

6 Gama, P. H., Oliveira, H., & **dos Santos**, **J. A.** (2021). Learning to segment medical images from few-shot sparse labels, In *2021 34th sibgrapi conference on graphics, patterns and images (sibgrapi)*. IEEE.

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