# ARTUR JORDÃO LIMA CORREIA

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## **EDUCATION**

- 2020 PhD degree in Computer Science, Federal University of Minas Gerais, Brazil. Smart Sense Laboratory.
- **2016** MSc. degree in Computer Science, University of Minas Gerais, Brazil. Smart Sense Laboratory.
- 2013 B.Sc degree in Computer Science, University of Western São Paulo, Presidente Prudente São Paulo, Brazil.

#### PROFESSIONAL ACTIVITY

**2023 - current** Assistant Professor, University of São Paulo (USP)

2021 - 2023 Post Doctoral, Universidade Estadual de Campinas

2022 Professor, Universidade Federal de São Carlos.

## **PROJECTS**

**2024 – current** Efficient Language Models and Advances in Data Distillation in Natural Language Processing. Funding Agency: Centro de Ciência de Dados (C2d).

**2023 – current** GreenAI: Reducing the Environmental Impact of Artificial Intelligence through Efficient Neural Networks. Funding Agency: National Council for

Scientific and Technological Development (CNPq). Grant: 402734/2023-8

**2023 – current** DeepPruning: Efficient Neural Networks by Exploring Pruning Techniques. Funding Agency: São Paulo Research Foundation (FAPESP). Grant:

2023/11163-0

#### SCHOLARSHIPS RECEIVED

- 2017 2020 Brazilian National Council for Scientific and Technological Development (CNPq). PhD. Scholarship. Research on compression and acceleration of deep networks.
  - **2016** Foundation for Research Development (FUNDEP) in partnership with SAM-SUNG. Research Scholarship. Research on human activity recognition. Federal University of Minas Gerais, Brazil. Smart Sense Laboratory.
- 2014 2016 Coordination for the Improvement of Higher Education Personnel (CAPES). Masters Scholarship. Research on visual computing and machine learning algorithms related to the surveillance.

#### AWARDS

- **2025** (Advisor) Top 3 undergraduate research work in Concurso de Trabalhos de Iniciação Científica (CTIC) of Sociedade Brasileira de Computação (SBC).
- 2021 2nd Place in the Competition on Domain Adaptation and GEneralization for Character Classification. International Conference on Pattern Recognition (ICPR), 2024.
- **2021** (Co-advisor) Best Paper Student Award: Detection and classification of animal crossings on roads using IoT-based WiFi sensing, IEEE LatinCom.
- **2021** Finalist of the XXXIV Concurso de Teses e Dissertações (CTD) 2021 XLI Congresso da Sociedade Brasileira de Computação (CSBC), ranking among the top 6 (out of 46) best theses.
- 2021 Best PhD Thesis (Edition 2021) of the Graduate Program in Computing Science of the Federal University of Minas Gerais Computer Science Department.
- 2021 Honorable Mention in Theses Grand Prize from the Federal University of Minas Gerais.

#### Professional Service Activity

#### Journal Reviewer

- Neural Processing Letters
- IEEE Transactions on Neural Networks and Learning Systems
- IEEE Transactions on Information Forensics and Security
- Springer Pattern Recognition Letters
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- Springer Knowledge-Based Systems
- IEEE Transactions on Emerging Topics in Computing
- IEEE Sensors Journal
- Springer Pattern Recognition Letters
- Nature Scientific Reports
- Frontiers Neuroinformatics
- IEEE Access
- Springer The Visual Computer
- Sensors MDPI

#### **Conference Reviewer**

- Computer Vision and Pattern Recognition (CVPR)
- Conference on Artificial Intelligence (AAAI)
- International Conference on Pattern Recognition (ICPR)
- Winter Conference on Applications of Computer Vision (WACV)
- Conference on Graphics, Patterns and Images (SIBGRAPI)
- Symposium Series on Computational Intelligence (SSCI)

## **PUBLICATIONS**

#### Conference papers

- do Nascimento G.; Pons I.; Costa, A. H. R.; Jordão, A. **Pruning Everything, Everywhere, All at Once**. International Joint Conference on Neural Networks (IJCNN), 2025.
- Mugnaini, L. G.; Yamamoto, B. L.; Alcantar, L. L.; Bollis, E.; Pellicer, L.; Costa, A. H. R.; Jordão, A. Efficient LLMs with AMP: Attention Heads and MLP Pruning. International Joint Conference on Neural Networks (IJCNN), 2025.
- 2024 Pons, I.; Yamamoto, B.; Costa, A. H. R.; Jordão, A. Effective Layer Pruning Through Similarity Metric Perspective. International Conference on Pattern Recognition (ICPR), 2024.
- Pons, I.; Yamamoto, B.; Costa, A. H. R.; Jordão, A. Effective Layer Pruning Through Similarity Metric Perspective. International Conference on Machine Learning (ICML) Workshop on Advancing Neural Network Training (WANT), 2024.
- Barros, M.; Jordão, Artur et al. Early Detection of Extreme Storm Tide Events Using Multimodal Data Processing. In: Conference on Artificial Intelligence (AAAI), 2024.
- 2023 Jordão, Artur; Araújo, George; Maia, Helena; Pedrini, Hélio. When Layers Play the Lottery, all Tickets Win at Initialization. In IEEE/CVF International Conference on Computer Vision (ICCV).
- Jordão, Artur; Pedrini, Hélio. **On the Effect of Pruning on Adversarial Robustness.** In IEEE/CVF International Conference on Computer Vision (ICCV).
- 2021 Jordão, Artur; Lie, Maiko; de Melo, Victor Hugo Cunha; Schwartz, William Robson. Covariance-free Partial Least Squares: An Incremental Dimensionality Reduction Method. In Winter Conference on Applications of Computer Vision (WACV).
- 2020 Jordão, Artur; Lie, Maiko; Yamada, Fernando; Schwartz, William Robson. Stage-Wise Neural Architecture Search. In International Conference on Pattern Recognition (ICPR).
- 2019 Jordão, Artur; Kloss, Ricardo; Yamada, Fernando; Schwartz, William Robson. Pruning Deep Convolutional Networks Using Partial Least Squares. In British Machine Vision Conference (BMVC) Workshops: Embedded AI for Real-Time Machine Vision.
- 2018 Jordao, Artur; Kloss, Ricardo; Schwartz, William Robson. Latent Hypernet: Exploring The Layers of Convolutional Neural Networks. In International Joint Conference on Neural Networks (IJCNN).
- 2018 Barbosa Kloss, Ricardo; Jordao, Artur; Schwartz, William Robson. Face Verification: Strategies For Employing Deep Models. In IEEE International Conference on Automatic Face and Gesture Recognition (FG).
- 2017 Barbosa Kloss, Ricardo; Jordão, Artur; William Schwartz. Boosted Projection: An Ensemble Of Transformation Models. In Iberoamerican Congress on Pattern Recognition (CIARP).

- 2016 Jordao, Artur; De Souza, Jessica Sena; Schwartz, William Robson. A Late Fusion Approach To Combine Multiple Pedestrian Detectors. In International Conference on Pattern Recognition (ICPR).
- 2016 Correia, Artur; Schwartz, William Robson. Oblique Random Forest Based On Partial Least Squares Applied To Pedestrian Detection. In IEEE International Conference on Image Processing (ICIP).

#### Journal papers

- Jordao, Artur; Souza, João; Kuroda, Michelle; Rezende, Marcelo; Pedrini, Hélio; Vidal, Alexandre. **Towards automatic and accurate core-log processing.** In Journal of Applied Geophysics.
- 2021 Sena, Souza; Jordao, Artur; Schwartz, William Robson. A Content-Based Late Fusion Approach Applied to Pedestrian Detection. In Journal of Visual Communication and Image Representation.
- 2020 Jordao, Artur; Yamada, Fernando; Schwartz, William Robson. **Deep Network Compression based on Partial Least Squares.** In Neurocomputing.
- 2020 Jordao, Artur; Lie, Maiko; Schwartz, William Robson. Discriminative Layer Pruning for Convolutional Neural Networks. In IEEE Journal of Selected Topics in Signal Processing.
- 2018 Jordao, Artur; Torres, Leonardo Antônio Borges; Schwartz, William Robson. Novel Approaches To Human Activity Recognition Based On Accelerometer Data. In Signal, Image And Video Processing.

## **PATENTS**

- 2018 **US 16/033,847** Method and system for sensor data recognition using data enrichment for the learning process.
- 2018 **BR 10 2017 026251 0** Metodo e Sistema de Reconhecimento de dados de sensor utilizando o enriquecimento de dados para o processo de aprendizagem. (in Portuguese)