FABIO PIGNELLI

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Professional Experience

Jan 2026 – ····	🔖	**Research Visitor** - University of Padua (UNIPD)
Dec 2024 – Oct 2025	🔖	**Lecturer** - State University of Maringá (UEM)
May 2023 – Jan 2026	🔖	**Pedagogical Coordinator | Lecturer** - Cidade Verde University (UniCV)
		Head of IT courses
Jul 2021 – May 2023	🔖	**Software Developer** - Stationsoft Consultancy and System Development
		Client was a key player in the agribusiness sector in Brazil

Education

Mar 2025 – ····	🔖	**D.Sc. in Computer Science** – State University of Maringá (UEM)
		Stay: University of Padua (UNIPD), with Prof. Loris Nanni
		Advisors: Yandre M.G. Costa, and Lucas O. Teixeira
Mar 2018 – Jun 2021	🔖	**M.Sc. in Computer Science** – State University of Maringá (UEM)
		Title: *Cognitive Inspired Model as Data Augmentation for Writer Identification using the Document Filter Protocol*
		Grant: *Coordination for the Improvement of Higher Education Personnel (CAPES)*
		Advisors: Diego Bertolini, and Yandre M.G. Costa
Feb 2014 – Dec 2017	🔖	**B.Sc. in Computer Science** – Ingá University (UNINGÁ)
		Title: *Breast Cancer Detection using Convolutional Neural Networks*
		Advisors: Claudia Heidemann, and Lucas O. Teixeira

Publications

Journal Articles

1. **Pignelli**, Fabio et al. "**Addressing Class Imbalance in Rice Disease Diagnosis with Contrastive Dissimilarity**". In: *AgriEngineering* 8.2 (2026). ISSN: 2624-7402. 🔗 DOI: 10.3390/agriengineering8020050.

Conference Proceedings

1. **Pignelli**, Fabio et al. "**Contrastive Dissimilarity for Writer Identification**: a proof of concept". In: *32nd International Conference on Systems, Signals and Image Processing (IWSSIP)*. 2025. 🔗 DOI: 10.1109/IWSSIP66997.2025.11151867.

2. Pereira, Luiz Fellipe Machi, **Fabio Pignelli**, et al. "**Japanese Kana and Brazilian Portuguese Manuscript Database**". In: *25th Iberoamerican Congress on Pattern Recognition (CIARP)*. 2021. 🔗 DOI: 10.1007/978-3-030-93420-0_17.

3. **Pignelli**, Fabio et al. "**Data Augmentation for Writer Identification Using a Cognitive Inspired Model**". In: *16th International Conference on Document Analysis and Recognition (ICDAR)*. 2021. 🔗 DOI: 10.1007/978-3-030-86337-1_17.

4. **Pignelli**, Fabio et al. "**Document Filter for Writer Identification**". In: *28th International Conference on Systems, Signals and Image Processing (IWSSIP)*. 2021. 🔗 DOI: 10.1007/978-3-030-96878-6_16.

5. Santana, Igor André Pegoraro, **Fabio Pignelli**, et al. "**Music4All**: A New Music Database and Its Applications". In: *27th International Conference on Systems, Signals and Image Processing (IWSSIP)*. IEEE. 2020. 🔗 DOI: 10.1109/IWSSIP48289.2020.9145170.

Prizes and Awards

2025 | 26	🔖 **D.Sc. Student Mobility Grant (72,680.53R$)**, Araucária Foundation, to visit Università degli Studi di Padova (UNIPD)
2018 | 19 | 20	🔖 **M.Sc. Student (42,000R$ - 1,500R$/month)**, CAPES
2017	🔖 **Hackathon-winning Team**, NASA Space Apps Challenge
2015 | 16 | 17	🔖 **Outstanding Student Award**, Ingá University

Teaching

UEM[1]	🔖 Applied Informatics, Human-Computer Interaction, Object-Oriented Programming, Programming Fundamentals
UniCV[2]	🔖 Computer Architecture, Graph Theory, Theory of Computation

Students

2024 – 25	🔖 **João Vitor Miguel** – Cidade Verde University (UniCV) Type: B.Sc. Student Title: Implementing Accessible Features in a 3D Graphic Engine (in Portuguese)
	🔖 **Isadora Gobira Benner**, with Prof. Erick Gagliardi – Cidade Verde University (UniCV) Type: B.Sc. Student Title: Technological Innovations and Their Impacts: An Analysis of Current Trends (in Portuguese)

Tools

Programming Languages	🔖 Python, JavaScript, C#, Matlab
Operating Systems	🔖 MacOS and Linux (Ubuntu | Mint) and Windows 10 | 11
Databases	🔖 SQLite, MySQL, Progress OpenEdge
ML Techniques	🔖 Statistical Models (SVM, K-NN, K-Means, Naïve Bayes), Deep Learning (CNN, MLP)
ML libraries	🔖 Scikit-learn, Keras, PyTorch, TensorFlow, OpenCV

Languages

Portuguese	🔖 Native
English	🔖 Professional proficiency
Spanish	🔖 Strong reading and comprehension
Italian	🔖 Basic
French	🔖 Basic

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[1]State University of Maringá
[2]Cidade Verde University