EVANDRO SCUDELETI ORTIGOSSA – CV

1 Personal Details

Date of birth: July 8th, 1989.
Country of birth: Brazil.
Permanent address: Palmach Street 22. Rehovot, HaMerkaz, 7622822, Israel.
Mobile phone numbers: +972 058-441-3123 and +55 16 99714-3951 (WhatsApp).
E-mail address: evortigosa@gmail.com

2 Education

IT Technician – São Paulo State Technical School (ETEC) Paula Souza, Barra Bonita-SP, Brazil.
Date of Conclusion: June 2006.

B.Sc. degree in Computer Science – Institute of Mathematics and Computer Science at University of São Paulo (ICMC-USP), Brazil.
Title: Analysis and Visualization of Direct Spending Data of Brazilian Federal Government.
Supervisor: Prof. Dr. Luis Gustavo Nonato. Date of Conclusion: July 2015.

M.Sc. degree in Computer Science and Computational Mathematics – ICMC-USP, Brazil.
Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) Fellowship.
Title: Multidimensional Time Series Visualization: An Analysis of the Air Quality in São Carlos-SP.
Supervisor: Prof. Dr. Luis Gustavo Nonato. Date of Conclusion: December 2018.

Ph.D. in Computer Science and Computational Mathematics – ICMC-USP, Brazil.
Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) Fellowship.
Title: T-Explainer: An Explainability Framework for Machine Learning Based on Gradients.
Supervisor: Prof. Dr. Luis Gustavo Nonato. Date of Conclusion: May 2024.

3 Training and Classes

Feb 2021 - **Jun 2021** Teaching internship – Discipline: Introduction to Computer Science (SCC0120). ICMC-USP. Supervisor: Prof. Dr. Agma Juci Machado Traina.

Feb 2020 - **Jun 2020** Teaching internship – Discipline: Algorithms and Data Structures II (SCC0503). ICMC-USP. Supervisor: Prof. Dr. Elaine Parros Machado de Sousa.

Jul 2017 - **Nov 2017** Teaching internship – Discipline: Computational Visualization (SCC0252). ICMC-USP. Supervisor: Prof. Dr. Maria Cristina Ferreira de Oliveira.

Feb 2017 - **Jun 2017** Teaching internship – Discipline: Image Processing (SCC0251). ICMC-USP. Supervisor: Prof. Dr. Moacir Antonelli Ponti.

4 Additional Background

2017 – Python programming. ICMC-USP.
2017 – Introduction to Android development with an API for sensors. ICMC-USP.
2016 – Stochastic modeling and uncertainty quantification. ICMC-USP.
2016 – Principles of graphic design: Theory and practice. ICMC-USP.
2013 – Authorship on Wikipedia: A practical approach. ICMC-USP.

5 Professional awards

Best Paper Award for the paper "Using Digital Image Processing to Estimate the Depth of Urban Streams", *XXVIII Conference on Graphics, Patterns and Images - SIBGRAPI*. August 2015.

6 Skills and expertise

- Programming languages such as C, C++, Java, JavaScript, and Python.
- Experience in Data Science and Machine Learning.

- Experience with Shapley values, SHAP, LIME, and Captum XAI.
- Experience in Information Visualization and Image Processing.
- Experience with interactive graphical interface development using JavaScript and D3.js.
- Linux operational system user.
- Proficiency in LaTeX writing.
- Knowledge in software engineering and object-oriented modeling.
- Knowledge in SQL.
- Knowledge in hardware and network configuration.

7 Academic production

1. **Ortigossa ES**, Gonçalves T, Nonato LG. EXplainable Artificial Intelligence (XAI)–From Theory to Methods and Applications. *IEEE Access*, vol. 12, pp. 80799-80846, 2024. DOI: 10.1109/ACCESS.2024.3409843

2. **Ortigossa ES**, Dias FF, Nascimento DC. Getting over High-Dimensionality: How Multidimensional Projection Methods Can Assist Data Science. *Applied Sciences*. 2022 Jul 5;12(13):6799. DOI: 10.3390/app12136799

3. Alexandrina EC, **Ortigossa ES**, Lui ES, Gonçalves JA, Corrêa NA, Nonato LG, Aguiar ML. Analysis and visualization of multidimensional time series: Particulate matter (PM10) from São Carlos-SP (Brazil). *Atmospheric Pollution Research*. 2019 Jul 1;10(4):1299-311. DOI: 10.1016/j.apr.2019.03.001

4. **Ortigossa ES**, Dias F, Ueyama J, Nonato LG. Using digital image processing to estimate the depth of urban streams. In *XXVIII Conference on Graphics, Patterns and Images (SIBGRAPI)*. Proceedings of SIBGRAPI, Bahia, Brazil 2015 (pp. 26-29). DOI: 10.13140/RG.2.1.4331.4408

8 Submitted manuscripts

1. **Ortigossa ES**, Dias FF, Barr B, Silva CT, Nonato LG. T-Explainer: A Model-Agnostic Explainability Framework Based on Gradients. *IEEE Intelligent Systems*, 2024. Preprint arXiv:2404.16495

2. **Ortigossa ES**, Dias FF, Nascimento DC. Time Series Information Visualization–A Review of Approaches and Tools. *IEEE Access*.

9 Under writing manuscript

1. **Ortigossa ES**, Silva P, Nonato LG. Evaluating Stability and Agreement of XAI Feature Importance Methods.

10 Final Course Work Evaluation Committee

- Prof. Dr. Rosana Teresinha Vaccare Braga and Evandro S. Ortigossa. Committee of Bruno Felipe Barbosa Pereira. 2019. Course Conclusion Paper (BSc Degree in Information Systems) - ICMC-USP.
- Prof. Dr. Ellen Francine Barbosa and Evandro S. Ortigossa. Committee of Paulo Humberto Sampaio Morais. 2019. Course Conclusion Paper (Graduation in Computer Engineering) - ICMC-USP.
- Prof. Dr. Denis Fernando Wolf and Evandro S. Ortigossa. Committee of Alberice Lucas de Araújo. 2019. Course Conclusion Paper (BSc Degree in Information Systems) - ICMC-USP.
- Prof. Dr. Renata Pontin de Mattos Fortes and Evandro S. Ortigossa. Committee of Matheus Gomes da Silva Horta. 2018. Course Conclusion Paper (BSc Degree in Computer Science) - ICMC-USP.
- Prof. Dr. André Carlos Ponce de Leon Ferreira de Carvalho and Evandro S. Ortigossa. Committee of Matheus de Lima Piovani. 2018. Course Conclusion Paper (BSc Degree in Computer Science) - ICMC-USP.

11   Reviewer

Journal of Geography, Environment and Earth Science International (JGEESI), 2024.

7th International Conference on Computer Science and Application Engineering (CSAE 2023).

28th SIICUSP – International Symposium on Scientific and Technological Initiation, USP, 2020.

27th SIICUSP – International Symposium on Scientific and Technological Initiation, USP, 2019.

12   Links

Personal Website – https://evortigosa.github.io/profile/

Github – https://github.com/evortigosa/

Google Scholar – https://scholar.google.com/citations?user=ICFHzKcAAAAJ

ResearchGate – https://www.researchgate.net/profile/Evandro-Ortigossa-2

LinkedIn – https://www.linkedin.com/in/evandro-ortigossa-58062221

Lattes Curriculum – http://lattes.cnpq.br/5545082740387699