

Luiz Guilherme Kasputis Zanini

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EDUCATION	École de Technologie Supérieure (ÉTS) (Montreal, QC, Canada) PhD in Engineering, specializing in Multimodal Learning for Emotional Recognition Advisor: Prof. Alessandro Lameiras Koerich Sep 2024 - Sep 2028
	University of São Paulo (São Paulo, SP, Brazil) M.Sc. in Electrical & Computer Engineering The University of São Paulo is the leading university in Latin America <i>Programa de Bolsas Itaú</i> (PBI) Fellowship Thesis: Segmentation and classification of dental caries in cone beam computer tomography Advisor: Fátima de Lourdes dos Santos Nunes Marques GPA: 3.8/4.0 - Based in Scholaro Fev 2022 - Jul 2024
	University of São Paulo (São Paulo, SP, Brazil) B.Sc. in Computer Engineering GPA: 3.12/4.0 - (7.8/10) Mar. 2018 - Dec. 2022
PUBLICATIONS	Convolutional architectures with LSTM and TCN to embolism classification: exploring dependency between data <u>Luiz Zanini</u> , Aldomar Silva, Felipe Almeida, Fátima Nunes, and Anna Costa. In Proceedings of the 19th National Meeting on Artificial and Computational Intelligence, November 28, 2022, Brazil. SBC, Porto Alegre, Brasil, 461-472. DOI: https://doi.org/10.5753/eniac.2022.227585 .
	Identification and quantification of caries from CBCT segmented images <u>Luiz Zanini</u> , Fátima Nunes, and Izabel Rubira-Bullen In Proceedings of the 23rd Brazilian Symposium on Computing Applied to Health, June 27, 2023, São Paulo/SP, Brazil. SBC, Porto Alegre, Brasil, 1-12. DOI: https://doi.org/10.5753/sbcas.2023.229376
	A Systematic Review on Caries Detection, Classification, and Segmentation from X-Ray Images: Methods, Datasets, Evaluation, and Open Opportunities <u>Luiz Zanini</u> , Fátima Nunes, and Izabel Rubira-Bullen Journal Imaging Inform Med. Published online March 1, 2024. https://doi.org/10.1007/s10278-024-01054-5
	Segmentation and Classification of Dental Caries in Cone Beam Tomography Images using Machine Learning and Image Processing <u>Luiz Zanini</u> , Fátima Nunes, and Izabel Rubira-Bullen In Proceedings of the 17th International Joint Conference on Biomedical Engineering Systems and Technologies - HEALTHINF, pages 428-435. DOI: https://doi.org/10.5220/0012365300003657
	Final Paper undergraduate course - Poli Usp - Computer Engineer The project involved advanced manipulation of cone beam computed tomography (CBCT) data and image processing techniques to identify dental structures and lesioned regions. These results were integrated into software created within the Unity environment. Dez 2022
HONORS	Best Final Paper of the Computer Engineering Poli - USP 2022 The final project involved using image processing for segmentation and machine learning to classify the intensity of caries, as well as incorporating virtual reality for result visualization.
	Second place for best paper in the undergraduate category at the National Meeting of Artificial and Computational Intelligence (ENIAC) The research focused on image classification in computed tomography for pulmonary embolism classification, leveraging convolutional architectures with LSTM and TCN modules.
WORK	Ada Tech, São Paulo, SP Set 2021 - Jan 2022

Data Science Intern

- Data modeling in DynamoDB and MySQL, data insertion via AWS services (Lambda, SQS, and S3)
- Data visualization using Amazon QuickSight
- Developing a machine learning models

Stefanini Scala, São Paulo, SP

Jan 2021 - May 2021

Data Science Intern

- Participation in a project using genetic algorithms
- Involvement in MILP problems using tools like CPLEX, Pulp, and Coin CBC
- Querying and formatting an SQL database with Sparky

Taqtile, São Paulo, SP

May 2020 - Dec 2020

Software Develop Intern

- Mobile front-end developer.
- Worked with React Native and Apollo GraphQL.

**CODING
CERTIFICATES****Python, PyTorch, TensorFlow, Unity, Amazon, C/C++, LaTeX, Git**
AWS Certified Cloud PractitionerProficient
June 2022

AI for Medicine - Deep Learning AI

Fev 2022

Especilization in Deep Learning - Deep Learning AI

Jun 2021

LANGUAGES**English** Fluent
Portuguese Native