Bruna Zamith Santos, MSc.

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Main Areas of Interest

- **Data Science, Machine Learning, Research & Development, Software Engineering**

Professional Experience

- **Amazon** — Sao Paulo, SP - Brazil
  - Applied Scientist II — Feb. 2024 – Present
  - Data Scientist II — Mar. 2022 – Jan. 2024
    - Developing Machine Learning models to improve operations, profitability and customer experience for Amazon LatAm. *Technologies: AWS, Python, SQL*

- **Amazon** — Sao Paulo, SP - Brazil
  - Software Development Engineer II — Dec. 2021 – Feb. 2022
  - Software Development Engineer I — Jul. 2020 – Nov. 2021
  - Software Development Intern — Jan. 2020 – Jul. 2020
    - Worked with both front and backend development. Modelled large scale applications, integrated with Amazon's core internal systems to improve the seller and buyer experiences. *Technologies: AWS, Java, Python, NodeJs*

- **Serasa Experian** — Sao Carlos, SP - Brazil
  - MIS Intern — Aug. 2019 – Dec. 2019
    - MIS (Management Information Systems) Intern. Worked with databases and on the construction of dashboards, in alignment with the needs of the Finance Department. *Technologies: SQL, SAS, Tableau*

Research Experience

- **BioMaL - Bioinformatics and Machine Learning Group** — Sao Carlos, SP - Brazil
  - Masters Candidate — Aug. 2021 – Dec. 2023
  - Scientific Initiation Scholar — Mar. 2015 – Sep. 2020
    - As a Master Candidate, I worked in the project entitled **"Climate Variables Forecasting and Forest Fire Risk Rate Classification in the Brazilian Pantanal"**, which was supported by Brazilian Agricultural Research Corporation (Embrapa). In such research, I had the opportunity to deep dive on **Time Series Forecasting** and **Genetic Algorithms**. *Technologies: Python, Docker*
    - As a scientific initiation scholar, I was the project team leader in the development of three scientific researches. Two of them funded by Sao Paulo Research Foundation (FAPESP) and National Council for Scientific and Technological Development (CNPq). Worked with different Machine Learning algorithms and datasets. Resulted in the publication of 5 papers. *Technologies: Python, R*

- **Katholieke Universiteit Leuven (KU Leuven)** — Kortrijk, Flanders - Belgium
  - Research Intern — Sep. 2017 – Dec. 2017
    - Scientific research **"Predicting Protein Functions via Interaction Prediction"**. Funded by Sao Paulo Research Foundation (FAPESP). The main purpose was to model the protein function prediction task as a Hierarchical **Multi-label Classification** (HMC) problem through interaction data. *Technologies: Java*

Education

- **Federal University of Sao Carlos (UFSCar)** — Sao Carlos, SP - Brazil
  - Masters in Artificial Intelligence — Aug. 2021 – Dec. 2023
    - **GPA:** 10/10

- **Federal University of Sao Carlos (UFSCar)** — Sao Carlos, SP - Brazil
  - Bachelor in Computer Engineering — Mar. 2015 – Jul. 2020
    - **GPA:** 8.75/10

Programming Skills

- **Languages:** Python (5 years); Java (5 years); R (2 years); SQL (2 years); C++ (6 months)
- **Others:** AWS, Git, Linux, Latex

Language

- **Portuguese:** Native
- **English:** Fluent (Cambridge English Certificate ESOL Intl)

Presentations, Proceedings, and Papers

- **"A New Time Series Framework for Forest Fire Risk Forecasting and Classification"** Zamith B., Soriano, B., Narciso, M., Furtado, D., Cerri R. (2023). International Joint Conference on Neural Networks (IJCNN).
- **"Predictive Bi-Clustering Trees for Hierachical Multi-label Classification"** Zamith B., Nakano, K. F., Cerri R., Vens C. (2020). European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD).
- **"Strategies for Selection of Positive and Negative Instances in the Hierarchical Classification of Transposable Elements"** Zamith B., Pereira, T. G., Nakano, K. F., Cerri R. (2018). Brazilian Conference on Intelligent Systems (BRACIS).
- **"A Genetic Algorithm for Transposable Elements Hierarchical Classification Rule Induction"** Pereira, T. G., Zamith B., Cerri R. (2018). IEEE Congress on Evolutionary Computation (IEEE CEC).
- **"A New Machine Learning Dataset for Hierarchical Classification of Transposable Elements"** Zamith B., Cerri R. (2016). National Meeting of Artificial and Computational Intelligence (ENIAC).
- **"Decisions Trees for Hierarchical Classification of Transposable Elements"** Zamith B., Gomes Mantovani R., Schietgat L., Vens C., Cerri R. (2016). Proceedings of the 25th Belgian-Dutch Machine Learning Conference (Benelearn).

Certifications

- **Practical Time Series Analysis (2024):** 25 hours online course provided by The State University of New York (SUNY).
- **Generative AI with Large Language Models (2024):** 16 hours online course provided by DeepLearning.ai and AWS.
- **Sequence Models (2022):** 38 hours online course provided by DeepLearning.ai.
- **Sequences, Time Series and Prediction (2022):** 23 hours online course provided by DeepLearning.ai.
- **Introduction to AWS (2020):** 5 hours online course provided by A Cloud Guru.
- **Version Control With Git (2019):** 12 hours online course provided by Atlassian.
- **Software Development Processes and Methodologies (2019):** 18 hours online course provided by University of Minnesota.

Other Projects

- **School of AI - Health Hackathon (2019):** Team project aimed to develop an app which seeks to reduce patients waiting time (at hospitals queue). The patient types what he is feeling and then via Natural Language Processing the symptoms are classified into a medical specialty.
- **Intel IoT Roadshow (2015):** Team project aimed to develop a "smart" bathroom making use of relevant capacity utilization data, and trigger "on demand" cleaning process alert, which leads to resources use optimization.