

Bruna Zamith Santos

PhD Candidate

bruna.zamith@hotmail.com | +55 (12) 99166-7541 | bzamith.github.io | linkedin.com/in/bruna-zamith

Professional Experience

iFood

Staff Data Scientist

Remote - Brazil

Dec. 2025 – Current

- Develop recommendation models and bidding optimization systems for Retail Media and Ads products.
- Own end-to-end ML development: business framing, experimentation, model training, deployment, monitoring, and optimization.

TECHNOLOGIES AWS, Python, SQL

DOMAINS Recommender Systems, Optimization, GenAI, A/B Testing, MLOps

Amazon

Applied Scientist II

Remote - Brazil

Mar. 2022 – Dec. 2025

- Own end-to-end supervised ML for Catalog and Supply Chain: business framing, data/feature pipelines, model training, offline and online evaluation, deployment, monitoring, and MLOps.
- Delivered models credited with \$50M+ incremental revenue and enabling 1.3M+ new catalog product launches through scalable decisioning services and data products.
- Partnered with PM/Eng/Ops to prioritize a multi-quarter roadmap, negotiate trade-offs (latency/cost/quality), and unblock adoption across LatAm businesses.
- Program Owner, GenAI capacitation: designed curriculum and delivered trainings and office hours for different job roles across 12 marketplaces (10k+ employees); measured adoption and learning outcomes.
- Published 2 internal Amazon papers (applied ML/GenAI); evangelized best practices in experimentation, evaluation, and productionization.

TECHNOLOGIES AWS, Python, SQL, Typescript

DOMAINS GenAI, Forecasting, Classification, A/B Testing, MLOps

Amazon

Software Development Engineer II

Software Development Engineer I

Software Development Intern

Sao Paulo, SP - Brazil

Dec. 2021 – Feb. 2022

Jul. 2020 – Nov. 2021

Jan. 2020 – Jul. 2020

- Built and operated large-scale front-/back-end services integrating with Amazon core systems to improve seller & buyer experiences.
- Led design reviews, API contracts, performance testing, reliability, and on-call for high-throughput workloads.
- Shipped resilient, well-instrumented services adopted by core retail flows in Brazil.

TECHNOLOGIES AWS, Java, Python, Typescript

DOMAINS Distributed Systems, APIs, Observability, Reliability

Serasa Experian

MIS Intern

Sao Carlos, SP - Brazil

Aug. 2019 – Dec. 2019

- Delivered Finance dashboards and automated data pipelines; improved reporting accuracy and turnaround time by 40%.

TECHNOLOGIES SQL, SAS, Tableau

DOMAINS Business Intelligence, Data Engineering

Education & Research

Federal University of Pernambuco (UFPE)

PhD in Artificial Intelligence

Remote – Brazil

Feb. 2025 – Present

- **Topic:** Explainable AI (XAI) for Time Series Classification.
- **GPA:** 10/10

TECHNOLOGIES Python (PyTorch/NumPy/Pandas), LaTeX

DOMAINS XAI, Time Series, Instance Hardness

Federal University of Sao Carlos (UFSCar)

Masters in Artificial Intelligence

Remote - Brazil

Aug. 2021 – Dec. 2023

- **Project:** Climate Variables Forecasting & Forest Fire Risk Classification in the Brazilian Pantanal. Pantanal faces recurrent fires driven by climate; existing indexes are biome-agnostic, limited in variables, and lack multi-day predictions.
- **Approach:** Built a two-stage ML system: (1) forecast climate variables; (2) classify daily fire-risk levels using predicted covariates. Compared exhaustive hyperparameter search to Genetic Algorithms (GA) for multi-objective optimization.
- **Results:** System outperformed standard fire-risk indexes on key classes and enabled forward-looking risk.
- **GPA:** 10/10

TECHNOLOGIES Python, R

DOMAINS Time Series, Forecasting, Classification, Genetic Algorithms

Katholieke Universiteit Leuven (KU Leuven)

Research Intern

Kortrijk, Flanders - Belgium

Sep. 2017 – Dec. 2017

- **Project:** Predicting Protein Functions via Interaction Prediction. Funded by Sao Paulo Research Foundation (FAPESP).
- **Approach:** Modeled protein function prediction as Hierarchical Multi-label Classification (HMC) over interaction networks; implemented data processing and evaluation pipelines.
- **Outcome:** Delivered reproducible code and benchmarks; informed subsequent HMC research at BioMaL/KU Leuven.

TECHNOLOGIES Java

DOMAINS HMC, Bioinformatics

Federal University of Sao Carlos (UFSCar)

Bachelor in Computer Engineering

Sao Carlos, SP - Brazil

Mar. 2015 – Jul. 2020

- **GPA:** 8.75/10

Programming Skills

Languages: Python (6 years); Java (5 years); SQL (3 years); Typescript (2 years); R (2 years); C++ (6 months)

Others: AWS, Git, Linux, LaTeX

Language

Portuguese: Native

English: Fluent (Cambridge English Certificate ESOL Intl)

Presentations, Proceedings, and Papers

TSCFEval: A Model-Agnostic Framework for Evaluating Time Series Classification Counterfactuals B. Zamith Santos, M. F. Andrade Lira, R. Cerri. 2026. In *Explainable Artificial Intelligence (XAI World Conference)*.

A New Time Series Framework for Forest Fire Risk Forecasting and Classification B. Zamith Santos, B. Soriano, M. Narciso, D. Furtado, R. Cerri. 2023. In *International Joint Conference on Neural Networks (IJCNN)*.

Predictive Bi-Clustering Trees for Hierarchical Multi-Label Classification B. Zamith Santos, K. F. Nakano, R. Cerri, C. Vens. 2020. In *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 B. Zamith Santos, T. G. Pereira, K. F. Nakano, R. Cerri. 2018. In *Brazilian Conference on Intelligent Systems (BRACIS)*.

A Genetic Algorithm for Transposable Elements Hierarchical Classification Rule Induction T. G. Pereira, B. Zamith Santos, R. Cerri. 2018. In *IEEE Congress on Evolutionary Computation (IEEE CEC)*.

A New Machine Learning Dataset for Hierarchical Classification of Transposable Elements B. Zamith Santos, R. Cerri. 2016. In *National Meeting on Artificial and Computational Intelligence (ENIAC)*.

Decision Trees for Hierarchical Classification of Transposable Elements B. Zamith Santos, R. G. Mantovani, L. Schietgat, C. Vens, R. Cerri. 2016. In *Proceedings of the 25th Belgian-Dutch Machine Learning Conference (Benelearn)*.

Certifications

Statistics and Optimization for Data Science and Operations Research (2026): 60 hours online course provided by University of Sao Paulo (USP).

Recommender Systems Specialization (2025): 80 hours online course provided by University of Minnesota.

Fundamentals of Probability and Statistics for Data Science (2025): 30 hours online course provided by University of Sao Paulo (USP).

Practical Multi AI Agents and Advanced Use Cases with crewAI (2025): 3 hours online course provided by DeepLearning.ai and crewAI.

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 Amazon Web Services (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.