Bruna Zamith Santos, PhD Candidate

bzamith.github.io

Email : bruna.zamith@hotmail.com
Mobile : +55 (12) 99166-7541

Main Areas of Interest

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

Professional Experience

- **iFood** — Remote - Brazil
  Staff Data Scientist — Dec. 2025 – Current
  - **Technologies:** AWS, Python, SQL
  - **Domains:** Recommender Systems, GenAI, A/B Testing, MLOps

- **Amazon** — Remote - Brazil
  Applied Scientist II — Feb. 2024 – Dec. 2025
  Data Scientist II — Mar. 2022 – Jan. 2024
  - 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** — 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
  - 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** — Sao Carlos, SP - Brazil
  MIS Intern — 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)** — Remote — Brazil
  PhD in Artificial Intelligence — Feb. 2025 – Present
  - **Topic:** Explainable AI (XAI) for Time Series Classification.
  - **Technologies:** Python (PyTorch/NumPy/Pandas), LaTeX
  - **Domains:** XAI, Time Series, Instance Hardness
  - **GPA:** 10/10

- **Federal University of Sao Carlos (UFSCar)** — Remote - Brazil
  Masters in Artificial Intelligence — 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.
- **Technologies:** Python, R
- **Domains:** Time Series, Forecasting, Classification, Genetic Algorithms
- **GPA:** 10/10

- **Katholieke Universiteit Leuven (KU Leuven)** Kortrijk, Flanders - Belgium
  Research Intern 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)** Sao Carlos, SP - Brazil
  Bachelor in Computer Engineering 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

- **"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

- **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.