Mariana Freitas

About

Experience with survival analysis, machine learning and statistical modeling applied to health data. Skilled in R for data analysis, predictive modeling, and development of interactive applications. Focus on public databases, and communication of statistical results through dashboards.

Skills & Languages

Languages: Portuguese (native), English (advanced)

Tools: R, Python, Shiny, SAS, LaTeX

Topics: Data analysis, Visualization, Statistical modeling, Survival analysis, Machine learning, Shiny Dash-

boards

Experience

Undergraduate Research – FAPES

2024-Present

Research on machine learning techniques for survival analysis using oncological data. Focus on support vector machines adapted to censored data and simulation-based model evaluation.

Undergraduate Research - Fiocruz

2023-2025

Development of an interactive platform for maternal and child health monitoring. Responsible for dashboard implementation, data integration from public sources, and interface design for data-driven decision support.

Undergraduate Research – Brazilian Obstetric Observatory (OOBr)

2022-2023

Conducted statistical analyses on maternal health outcomes using public data. Created interactive dashboards and contributed to the development of tutorials for statistical education.

Teaching Assistant - UFES

2023-2024

Supported students in understanding core concepts of probability and statistics. Assisted in applied problem solving using R.

Courses & Events

Lecturer - Daslab • 2025

Presented a lecture on Support Vector Machines and Random Machines applied to Survival Analysis, including examples on oncological data.

Poster Presentation – 69th RBras Annual Meeting and 21st SEAGRO • 2025

Presentation of study on support vector machines adapted to censored data and simulation-based model evaluation with oncological data applications.

69th RBras Annual Meeting and 21st SEAGRO Organization • 2025

Part of the organizing committee of 69th RBras Annual Meeting and 21st SEAGRO – one of the most important scientific events in Brazil in the fields of statistics, agriculture, and environmental sciences.

Lecturer – RLadies Vitória • 2024

Organized and taught an introductory R workshop for Chemistry students, covering basic syntax, manipulation, and visualization.

Lecturer - Data Science Workshop • 2022

Taught the creation of interactive dashboards for health data analysis using R library Shiny. Introduced app structure, reactivity, and design of user interfaces.

Poster Presentation - 66th RBras • 2022

Presented a study on vaccination effects in obstetric COVID-19 outcomes using segmented regression models to evaluate impact over time.