Mariana Freitas

ABOUT

Undergraduate student in Statistics at the Federal University of Espírito Santo (UFES) (2022 - present).

Throughout my academic journey, I have developed an interest in statistical tools applied to health. I have worked with oncological data, maternal and child health, and public health indicators, using statistical and machine learning techniques. I have also been highly involved with R and Shiny for exploratory analysis and creating interactive dashboards. I have experience with survival models, machine learning adapted to censored data, and analysis of large databases, such as those from the Brazilian Unified Health System (SUS). Additionally, I have had the opportunity to participate in teaching projects, which has allowed me to develop didactic skills for explaining statistical concepts clearly and objectively.

Idiomas: - Portuguese - English

Habilidades: - Data analysis - Exploratory analysis - Survival Analysis - Support Vector Machine - R Programming Language - Python Programming Language - R Shiny - Data visualization - Statistical modeling

EXPERIENCES

Research Fellow at FAPES (2024 - present)

Development of an interactive Shiny/R dashboard with a multidisciplinary team for analyzing maternal-child health indicators in Brazil, using public SUS data. The platform enables dynamic data visualization through interactive charts and tables. The project aimed to support decision-making by healthcare managers and promote transparency in public health information dissemination.

Fiotec Fellow (2023 - 2025)

Development of an interactive Shiny/R dashboard with a multidisciplinary team for analyzing maternal-child health indicators in Brazil, using public SUS data. The platform enables dynamic

data visualization through interactive charts and tables. The project aimed to support decision-making by healthcare managers and promote transparency in public health information dissemination.

Fellow at Brazilian Obstetric Observatory (OOBr) (2022 - 2023)

AWorked as a fellow at OOBr, handling public data related to maternal health. My responsibilities included statistical analysis of this data, creating interactive dashboards, and information visualization using R. Additionally, I contributed to producing statistical tutorials, helping disseminate knowledge in the field.

Teaching Assistant at Federal University of Espírito Santo (2023 - 2024)

AServed as a teaching assistant for Probability and Statistics courses for students across various programs at the Federal University of Espírito Santo, helping them grasp essential statistical concepts.

EVENTS AND COURSES

Instructor at RLadies Vitória (2024)

Served as instructor and organizer for the "Basic R for Chemists" workshop at RLadies Vitória, a chapter of R-Ladies Global - an organization promoting gender diversity in the R community.

Poster Presentation at 66th RBras Annual Meeting (2022)

Presented the work "Evaluation of vaccination impacts on COVID-19 data via segmented models" at the 66th RBras. The study used Poisson, quasi-Poisson, and segmented beta regression models to analyze vaccination effects on severe obstetric outcomes from COVID-19. Results highlighted the protective role of the first dose, with significant effects observed 10 to 30 days post-vaccination.

Instructor at Data Science Workshop (2022)

Taught the "Introduction to Shiny" course, covering the *shiny* and *shinydashboard* packages for creating interactive dashboards. The course ranged from basic Shiny app structure to building dynamic interfaces for health data visualization, with focus on obstetric data applications.

CONTACT

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