CV

Luís Assunção

Email / GitHub / LinkedIn / Website

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Employment

Hotmart

Staff Data Scientist | April 2020 - present

- Developed an experimentation platform with sequential testing to scale conversion rate optimization
- Designed experiments and causal graphs to estimate feature effects and support decision making
- Estimated pricing elasticity for digital products using multilevel models
- Enriched internal data by classifying evergreen vs launching sales strategies for digital products using hidden state models
- Improved quality of course assignments using Item Response Theory models

Oper

Data Scientist | Oct 2018 - March 2020

- Consulted for companies such as AB InBev and GTB in statistical projects
- Modeled spatial pricing elasticity for beverages using Gaussian Processes
- Estimated revenue attribution in multi-touchpoint marketing campaigns

IRIS

Intern | 2015 - 2017

- Collected, wrangled and described survey data
- Researched policies to advance human rights in the digital matters

Education

B.S in Statistics

Federal University of Minas Gerais (UFMG) | Belo Horizonte, MG - Brazil | 2017 - 2021

- Researched and authored a reproducible monograph (in portuguese with an abstract in english) on exponential random graphs applied to epidemiology
- Co-authored Frequency and burden of neurological manifestations upon hospital presentation in COVID-19 patients: Findings from a large Brazilian cohort

Examples

Blog

Posts on statistical modeling and data analysis:

- Drafting a fantasy football team: In this post, I delve into the data for the 2022 season of a brazilian fantasy football league, formulate a mixed integer linear program to draft the optimal team; and present initial concepts for forecasting player scores using mixed effects linear models.
- Additive aging curve: In this post, I compare empirical and parametric approaches to modeling aging- curve-like non-monotonic relationships using data from a verbal working memory test.

Some tools used in my blog: Python, cvxpy, matplotlib, numpy, polars, pymc.

Repositories

- site: My website and blog post codes using Quarto
- savvi: Python package for Safe Anytime Valid Inference
- tophat: Historical database of Cartola, a fantasy football league
- qlm: R package to generate predictive SQL queries from linear models

Others

• Pod & Dev podcast episode, where I talk (in portuguese) about the challenges in pricing digital products and causal assumptions we made to overcome these challenges in our model at Hotmart. We also discuss good and bad use cases for large language models, as well as how models with 2 parameters can be as useful as models with 200 million parameters.