Gustavo Varela-Alvarenga

Statistician

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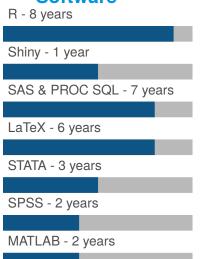
About me -

Statistician with 5 years of experience with econometric research and over 7 years of experience with quantitative and qualitative data analysis. Won an award for a paper in which I evaluated the **impact** of a public policy in Brazil. Currently, PhD candidate in Statistics and developing a new method for time series forecasting (theory, R package and Shiny app). Looking for an internship or part-time job in data science/statistics/research.

Stat Skills -

Time-series analysis Generalized Linear and Mixed ANOVA/MANOVA/ANCOVA Instrumental variable models Selection models Matching algorithms Hypothesis Testing Monte Carlo simulations Bootstrap methods Descriptive statistics Survey methodology

Software



Python - < 1 year

Experience

08/13 - 07/14 Lead Statistician

Brazilian Agency for Industrial Development (ABDI)

Think Tank Brasilia, Brazil

- •Worked with a multidisciplinary team in the development of studies and research papers/whitepapers to assess the impact of public policies towards Brazilian industrial development by gathering data from different sources and surveys, and analyzing it;
- Presented the results to the Brazilian Minister of Industry.

08/12 - 07/14 Lecturer - Applied Statistics

Universidade de Brasilia

University Brasilia, Brazil

- Taught applied statistics to undergrad students from areas outside STEM (e.g. social sciences, psychology & others);
- •Found ways to convey complex concepts to a non-technical audience.

01/09 - 08/13 **Researcher**

Institute for Applied Economic Research (IPEA)

Think Tank Brasilia, Brazil

- •Evaluated the impact of public policies towards Industrial Innovation using a wide range of statistical methods and recommended actions for policy improvement based on results of simulations (see section Publications);
- Handled, processed and analyzed large datasets from multiple sources.

Education

08/14 - 05/19 Ph.D. Candidate in Statistics University of Maryland at College Park Dissertation: A new method for time series forecasting.

(expected) Maryland,

Adviser: Dr. Benjamin Kedem

USÁ

08/09 - 12/11 Master in Economics of the Public Sector Universidade de Brasilia, Brazil Brasilia, Brazil

Title of thesis: Impacts of the Brazilian science and technology sector funds on industrial firms' R&D inputs and outputs: new perspectives using

a dose-response function. Adviser: Dr. Donald Pianto

02/04 - 12/08 Bachelor of Science in Statistics Universidade de Brasilia, Brazil

Brasilia, Brazil

Title of monograph: The Empirical Characteristic Function Applied to Op-

erational Risk Modeling. Adviser: Dr. Raul Matsushita

Awards

12/2012

CNI National Economy Award

2nd Place (Prêmio CNI de Economia)

Pernambuco. Brazil

Award granted to the paper: "Impacts of the Brazilian science and technology sector funds on industrial firms' R&D inputs and outputs: new perspectives using a dose-response function".

Click here for the full paper in English and here for more info about the award.

Analytical Skills

Impact Evaluation
Research
Econometric analysis
Data analysis and management
Critical and model thinking
Problem solving
Qualitative and quantitative
analysis
Web scrapping
Data visualization

Selected Publications

Demand for air ticket in economy: a co-integration analysis.

Journal of Transport Literature. Vol. 5, number 3, pp. 64 – 88. April, 2011. Click here for the full paper in Portuguese with abstract in English.

Counter-cyclical policies in the automobile industry: a co-integration analysis of the impacts of IPI reduction on vehicle sales

Texto para Discussão No. 1512. Instituto de Pesquisa Econômica Aplicada (IPEA), 2010. Click here for the full paper in Portuguese with abstract in English.

For a full list of publications, see my Google Scholar profile.

Datasets -

Experience with large datasets, including data from household surveys
Had to combine several datasets - with around 50 million lines each and 15 GB each - by an unique identification number Had to find ways to do this efficiently

Used **SQL** procedures in SAS (PROC SQL) for data extraction and manipulation due to the size and complexity of the datasets.

Data Viz -

Some of the R packages that I have used for **data** visualization:
ggplot2
plotly
highcharter
dygraph
googlevis
ggiraph
shiny

Languages -

Portuguese - Native

English - Fluent

Short Courses

2018	Learn Python - Online Course	Codecademy
2018	Introduction To JavaScript - Online Course	Codecademy
2012	Game Theory - Online Course	Stanford University
2012	Model Thinking - Online Course	University of Michigan
2012	Topics in Real Analysis - Summer Course	Universidade de Brasilia

Other Info

StackExchange

R related answers: link

Statistical-related answers: link Probability-related answers: link

LinkedIn Profile: link