Fernando B Sabino da Silva

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EDUCATION

- Ph.D in Economics, **Federal University of Rio Grande do Sul (UFRGS)**, Porto Alegre, RS, Brazil (09/2012 – 04/2017)
- M.S. in Statistics, **The University of North Carolina at Chapel Hill**, Department of Statistics and Operations Research, Chapel Hill, NC, USA (08/2003 – 04/2006)
- M.S. in Economics, **FGV/EPGE Brazilian School of Economics and Finance, Getulio Vargas Foundation**, Rio de Janeiro, RJ, Brazil (01/1999 – 05/2001)

TEACHING EXPERIENCE

- **Assistant Professor**, Federal University of Rio Grande do Sul (May 2017 - present)
- **Senior Lecturer**, Federal University of Rio Grande do Sul (June 2001 - July 2003, March 2008 - April 2017)
  ∘ Mentored approximately 750 undergraduate students in data collection, analysis and presentation of research findings using linear regression, time series analysis (ARIMA, GARCH) and statistical learning (Logistic Regression, Cross-validation, Bootstrap, Ridge Regression, Lasso, Decision Trees, Bagging, Random Forests, K-Means Clustering).
  ∘ My students consistently take higher grades in the Statistics exam in the unified national exam in Brazil (**Anpec**) for admission in graduate programs in Economics.
- **Lecturer**, University of North Carolina at Chapel Hill (August 2005 - December 2007)

INDUSTRY EXPERIENCE/ CONSULTING

- **NTConsult**: Econometric Analysis Consultant (08/2015 -02/2016)
  ∘ Forecasting and Model Building (Linear Regression, ARIMA, VAR / VECM) for the Brazilian Tax on Commerce and Services (ICMS) for the state of Maranhao (MA). My model lowered RMSE by 44% compared to the model used by the Maranhao State Treasury.
- **Appus HR/Analytics** and **Data Pier**: Predictive Analytics Consultant (04/2016 - present)
  ∘ Proposed a machine learning (random forest, gbm) approach to create a recommender system. Our model reduced the total health care costs for a large steel company by 13%.

PROJECTS

Federal University of Rio Grande do Sul
Assistant Professor

- Pairs Trading: Optimizing via Mixed Copula versus Distance Method for S&P 500 Assets. **Press Coverage:** Quantpedia
  ∘ My method increased by 60% the excess returns compared to the traditional method, especially after the subprime mortgage crisis.
- Robust Portfolio Optimization with Multivariate Copulas: A Worst-Case CVaR approach
  ∘ Developed a novel approach to protect investors against any market conditions. My approach lowered CVaR by at least 24% compared to conventional benchmarks.
- Macroeconomic Forecasting: Optimizing via Natural Language Processing and Text Mining Analytics
  ∘ Scraping webpages from minutes of the Copom (Monetary Policy Committee of the Central Bank of Brazil). We show that our sentiment index contains relevant information about the economic activity. Thus, a market timing strategy that exploits this seasonality could be created to obtain higher returns.
- Is sleep apnea a winter disease? Meteorologic and sleep laboratory evidence collected over 1 decade. Press Coverage: Reuters, HealthCommunities, News Medical
  ∘ I detected the existence of a seasonality pattern in sleep apnea using beta regression and cosinor analysis. I concluded that more sleep-disordered breathing events were recorded in winter than in other seasons.
- Disrupted daynight pattern of cardiovascular death in obstructive sleep apnea. Editorial article's opinion.
  ∘ I examined a presence of a day-night variation in all CV-related deaths in concurrent OSA and found a "flattening" of events across 24h using kernel methods.

HONORS AND AWARDS

- Ph.D. in Economics with Highest Academic Distinction (GPA 3.0 out of 3.0) (2017)
- UNC at Chapel Hill "Excellence in Teaching Award - For excellence in teaching undergraduates" (2006)
- UNC at Chapel Hill "UNC Travel Award" (2006)
- Brazilian Statistical Association (ABE) "The third best master's dissertation in the biennium 2001-2002" (2002)
- Anpec First Place in the Statistics exam in the unified national exam (out of over 1000 candidates) for admission in graduate programs in Economics (Anpec) (1999)
- Recipient of scholarships for 9 years (M.A., M.S. and B.S. in Statistics)

COMPUTER SKILLS/OTHER

∘ Computer Languages: R, Matlab, Python, Latex, SQL, Git, Spark
∘ Languages: English (fluent), Portuguese (native), Spanish (basic)

Links

Referees

Below is a list of referees you are welcome to contact for recommendations:

Prof. Carlos Brunet Martins-Filho
Department of Economics
UCB 256
University of Colorado at Boulder
Boulder, CO 80309-0256 USA
☎ (303)492-4599
✉ carlos.martins@colorado.edu

Prof. Elton F. Sbruzzi
Division of Computer Science
Artificial Intelligence and Data Science
Brazilian Air Force
Aerospace Science and Technology Department
Aeronautics Institute of Technology (ITA)
Sao Jose dos Campos, SP 12228-900 Brazil
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Prof. Denis Martinez
School of Medicine
Department of Internal Medicine
Federal University of Rio Grande do Sul
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☎ +55 51 984027273
✉ denis@sono.com.br

Prof. Gregorio Caetano
University of Rochester
Department of Economics
229 Harkness Hall
PO Box 270156 Rochester, NY 14627 USA
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Dr. Hudson Chaves
Co-founder and CEO, Data Pier
Senior Manager - People Advisory Services,
Ernst & Young (EY)
Department of Economics
Brazilian Institute of Capital Markets (IBMEC)
Sao Paulo, SP 04546-003 Brazil
☎ +55 51 982687680
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Prof. Flavio A. Ziegelmann
Department of Statistics
Federal University of Rio Grande do Sul
Porto Alegre, RS 91509-900 Brazil
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✉ flavioz@ufrgs.br

Extra Activities & Interests

○ State runner up 3000m steeplechase U-20
○ Tennis, Investing, Checkers