

# Fernando B Sabino da Silva

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512 West 112th Street 2A, New York, NY 10025

## EDUCATION

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- 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

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- **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

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- **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

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Federal University of Rio Grande do Sul

### Assistant Professor

- Mixed Copula Pairs Trading on the S&P 500. 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

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- 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

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

## LINKS

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- GitHub://**Fernando S. da Silva**
- ResearchGate://**Fernando Sabino da Silva**
- LinkedIn://**Fernando B. Sabino da Silva**
- Slideshare://**Fernando Boeira Sabino**

## REFEREES

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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  
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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)  
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Prof. Denis Martinez  
School of Medicine  
Department of Internal Medicine  
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Prof. Gregorio Caetano  
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Department of Economics  
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Dr. Hudson Chaves  
Co-founder and CEO, Data Pier  
Senior Manager - People Advisory Services,  
Ernst & Young (EY)  
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## EXTRA ACTIVITIES & INTERESTS

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