

# Gabriel Filipe Rodrigues Vasconcelos

## **Personal data:**

**Birthdate:** 1988-12-21

**Nationality:** Brazilian

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## **PhD Details**

**Period:** August 2014 – July 2018

**Institution:** Pontifical Catholic University of Rio de Janeiro

**Department:** Electrical Engineering

**Specialization:** Decision Support Methods

**Thesis:** Forecasting in High-Dimension: Inflation and other Economic Variables

**Advisor:** Álvaro Veiga

**Co-advisor:** Marcelo Medeiros

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## **References:**

Marcelo Medeiros

Department of Economics

Pontifical Catholic University of Rio de Janeiro

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Álvaro Veiga

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## **Professional Experience**

### **Department of Economics – University of California, Irvine**

**Position:** Postdoctoral Research Associate

**Activities:** Working with Machine Learning and its applications in Economics as a member of the Deep Data Lab. Works with large datasets in topics such as credit and retail.

**Period:** July 2019 – Current

### **Department of Economics – Pontifical Catholic University of Rio de Janeiro**

**Position:** Postdoctoral Researcher

**Activities:** Working in independent high-quality research and teaching undergraduate and graduate

courses.

**Period:** September 2018 – July 2019

**DLAB PUC-Rio & Lojas Americanas (Large Retail Company)**

**Position:** Data Scientist

**Activities:** Working with very large retail datasets, building models to predict sales and pricing models to optimize the company's profit.

**Period:** April 2016 – August 2018

**Consulting Jobs:**

**Covid19 Analytics PUC-Rio**

One of the members of the first group that started the covid19analytics.com.br platform. Responsible for the Coronavirus forecasting model and for maintaining the platform online. The platform had a very big impact in Brazil with hundreds of media articles using it as reference.

**Navi Capital**

Three months job to assist the company in creating a Data Science/Business Intelligence department.

**Parcitas Gestão de Investimentos/ Opportunity (Investment Companies)**

Three months job to develop a toolkit to forecast the Brazilian inflation and industrial production using Machine Learning Methods.

**SPX Gestão de Recursos (Investment Company)**

Four months teaching job of Machine Learning methods with theory and application.

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**Publications:**

Forecasting Inflation in a data-rich environment: the benefits of machine learning methods

*Journal of Business & Economic Statistics* (2019)

Joint work with Marcelo Medeiros, Álvaro Veiga and Eduardo Zilberman

Measuring the aggregate effects of the Brazilian Development Bank on investment

*The North American Journal of Economics and Finance* (2019).

Joint work with Ricardo Barboza

Arco: An R package to estimate Artificial Counterfactuals

*The R Journal* (2018) with package available on CRAN

Joint work with Yuri Fonseca, Ricardo Masini and Marcelo Medeiros

Real-time inflation fore-casting with high-dimensional models: The case of Brazil

*International Journal of Forecasting* (2017)

Joint work with Márcio Garcia and Marcelo Medeiros

Forecasting Brazilian Inflation with High-Dimensional Models

*Brazilian Review of Econometrics* (2016)

Joint work with Marcelo Medeiros and Eduardo Freitas

Mitigating wind exposure with zero-cost collar insurance

*Renewable Energy* (2016)

Joint work with Gláucia Fernandes, Leonardo Gomes and Luiz Brandão

Forecasting Macroeconomic Variables in Data-rich Environments  
*Economics Letters* (2015)  
Joint work with Marcelo Medeiros

Parametric Portfolio Selection: Evaluating and Comparing to Markowitz Portfolios  
*Brazilian Review of Finance* (2014)  
Joint work with Marcelo Medeiros and Artur Passos

### **Book Chapters:**

Penalized Time Series Regression  
*Macroeconomic Forecasting in the Era of Big Data* (2020)  
Joint work with Anders Kock and Marcelo Medeiros

### **Working Papers:**

Short-Term Covid-19 Forecast for Latecomers.  
*With Marcelo Medeiros, Alexandre Street, Davi Valladão and Eduardo Zilberman*

BooST: Boosting Smooth Trees for Partial Effect Estimation in Nonlinear Regressions. *With Yuri Fonseca, Marcelo Medeiros and Álvaro Veiga.*

Managers versus Machines: Do Algorithms Replicate Human Intuition in Credit Ratings? *With Matthew Harding.*

Predicting Mortality from Credit Reports. *With Giacomo de Giorgi and Matthew Harding.*

Mean-Variance Efficiency of a Portfolio in Ultra-High Dimensions and Cases of Maximum Out-of-Sample and Constrained Maximum Sharpe Ratios. *With Mehmet Caner and Marcelo Medeiros.*

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### **Other Information:**

Founder of the insightR blog <<https://insightr.wordpress.com>> with several R, Data Science and Machine Learning posts.