

# Allan Vieira de Castro Quadros

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## EDUCATION

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### University of Brasilia - UnB

B.Sc. in Statistics

2018

*with the Outstanding Student award from the Statistics Department*

### State University of Campinas - Unicamp

M.Sc. in Economic Development

2012

Full Teaching degree (B.Ed.) in Geography

2008

## INTERESTS

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Statistical Computing, Statistical & Computational Finance, Optimization, Stochastic Processes, Statistical Learning, R Programming, Astrostatistics

## EMPLOYMENT

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### Consulting

Statistics and Data Science Consultant

Jul. 2017 - now

### National Fund for Educational Development - FNDE

Educational Financing Specialist

May 2013 - now

### RCX Investments

Registered Investment Adviser

Jul. 2011 - Jan. 2012

*accredited by the Brazilian Investment Advisers Association - ANCORD*

### University Center of Jaguariúna - UniFAJ

Lecturer in Economics

Jul. 2010 - Apr. 2013

### Brazilian Army - Infantry Branch

First Lieutenant

Aug. 2007 - Jun. 2009

Second Lieutenant

Aug. 2004 - Aug. 2007

Officer Candidate

Dec. 2003 - Aug. 2004

Officer Student

Feb. 2003 - Dec. 2003

## SCIENTIFIC PRODUCTION

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### SOFTWARE

3. **mRpostman**: An R Package with IMAP Tools in a Tidy Way. 2019.  
CRAN stable version: <https://cran.r-project.org/package=mRpostman>  
Dev version: <https://github.com/allanvc/mRpostman>  
Package's official website: <https://allanvc.github.io/mRpostman>
2. **emstreeR**: An R Package for Fast Computing Euclidean Minimum Spanning Trees. 2018.  
CRAN stable version: <https://cran.r-project.org/package=emstreeR>  
Dev version: <https://github.com/allanvc/emstreeR>
1. **FisFa - Fiscaliza Fatura** (*Invoice Fiscalization*). A Software for Contract Management developed in R and Python. 2016.  
Brazilian Patent: BR 51 2016 000212 3. *FisFa has accounted for over US\$ 50 million in savings for the Brazilian Government and received two awards.*

## WORKING PAPERS

Astrostatistics:

Beaklini P., **Quadros A.**, Souza R. S., Avellar M., Dantas M. L., Cançado A. “**Radio Loud and Radio Quiet dichotomy: a multivariate analysis**”.

## CONFERENCE PAPERS

Economics:

2. **Quadros A.**, Silva F. “**An evolutionary approach on the role of technology in agriculture**” (*Portuguese title: Uma abordagem evolucionista do papel da tecnologia na agricultura*). XIX Brazilian Congress on Economics. Bonito-MS, Brazil. September, 2011. *One of the 14 winner articles selected by the referees.*
1. **Quadros A.** “**Strategies on quasi-rent appropriation in the coffee productive chain: the case of Alta Mogiana’s growers**” (*Portuguese title: Estratégias de apropriação de quase-rendas na cadeia produtiva de cafés: o caso dos produtores de cafés especiais da Alta Mogiana*). 49th Congress of the Brazilian Rural and Economic Sociology Society (SOBER). Belo Horizonte-MG, Brazil. July, 2011.

Applied Statistics:

1. Barreto M., Malheiros T., **Quadros A.**, Serra L. “**Analysis of the environmental sound pressure level in a neonatal intensive care unit**” (*Portuguese title: Análise do nível de pressão sonora ambiental em uma unidade de terapia intensiva neonatal*). 34th International Meeting on Audiology (ELA). Foz do Iguaçu-PR, Brazil. May, 2019.

## TALKS, PRESENTATIONS AND SEMINARS

2. (invited) “**Data Analysis in the Public Sector**” (*Portuguese title: Análise de Dados no Setor Público*). National Fund for Educational Development (FNDE) - Brasília, Brazil.
1. “**Identifying undergraduate students’ typical academic paths at ICS/UnB**” (*Portuguese title: Identificação de Trajetórias Típicas dos Estudantes do ICS/UnB*). 22th Congress on Undergraduate Research - UnB. September, 2017 (poster).

## RESEARCH GROUPS AND PROJECTS

3. **mlpackR** 2018 - now  
Description: Development of an R package aiming to provide, via RcppMLPACK, all the algorithms available in mlpack (v1.0) - the C++ Machine Learning Library, so R users do not have to deal with the R-Rcpp-C++ integration.  
Coordination: **Allan Quadros**. Number of members: 3.
2. **Methods and Inference on Clustering** 2017 - now  
Description: Study and development of new clustering methods and algorithms.  
Coordination: Prof. André Cançado. Number of members: 5.
1. **Undergraduate Students’ Risk Assessment - University of Brasilia** 2016 - 2017  
Description: Use of Sequence Analysis, Markov Chain, and Logistic Regression to evaluate the risk of students no graduating on time.  
Coordination: Prof. Donald Pianto. Number of members: 10.

## OTHER WRITING

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**Quadros, A. “Who is afraid of Math?”** (*Portuguese title: Quem tem medo de Matemática?*).  
A book to help people overcome their fear of mathematics. *In preparation.*

## TEACHING

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|---------------------------------------------------------------------------------------------------|-----------------------|
| 11. Data Analysis with R - Fast Intermediate Level<br>Instructor, FNDE, 15 hours                  | Aug. 2019             |
| 10. Data Analysis with R - Fast Introductory Level<br>Instructor, FNDE, 15 hours                  | Jul. 2019             |
| 9. Data Analysis with R - Intermediate Level<br>Instructor, FNDE, 28 hours                        | Jul. 2018             |
| 8. Data Analysis with R - Introductory Level<br>Instructor, FNDE, 21 hours                        | Jan. 2018             |
| 7. Business Economics<br>Lecturer, MBA in Financial Management and Accounting, UniFAJ             | Fall, 2012            |
| 6. International Trade<br>Lecturer, UniFAJ                                                        | Spring and Fall, 2012 |
| 5. Introduction to Economics<br>Lecturer, UniFAJ                                                  | Fall, 2012            |
| 4. Management and International Trade<br>Invited Lecturer, MBA, Mackenzie Presbyterian University | Spring, 2012          |
| 3. GL600: Market Studies and Marketing<br>Teaching Assistant, Unicamp                             | Spring, 2011          |
| 2. Macroeconomics<br>Lecturer, UniFAJ                                                             | 2010 - 2012           |
| 1. Microeconomics<br>Lecturer, UniFAJ                                                             | 2010 - 2012           |

## SCHOLARSHIPS

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|---------------------------------------------------------------------------|-----------------------|
| 2. Coordination for the Improvement of the Higher Level Personnel - CAPES | Sep. 2009 - Feb. 2012 |
| 1. Innovation Agency of Unicamp - INOVA                                   | May - Sep. 2009       |

## AWARDS AND RECOGNITION

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| 5. <b>Outstanding Student</b><br>Honor conceded by the Department of Statistics at UnB to the first student (highest GPA) of the class.                                                                                                                                   | Sep. 2018 |
| 4. <b>Standout Project in Contract Management</b><br>Awarded to my FisFa Software at the 4th ANGC Awards - Best Initiatives of the Year on Contract Management, National Association of Contract Managers (Associação Nacional dos Gestores de Contratos - ANGC), Brazil. | Sep. 2018 |
| 3. <b>1st Place - Strengthening Internal Controls in Public Administration</b><br>Awarded to my FisFa Software at CGU's 4th Good Practices Contest, Ministry of Transparency and Comptroller-General of the Union, Brazil.                                                | Dec. 2016 |

2. **1st Place (of 14) at Army Reserve Officers' Training Corps - Professional Internship** Jul. 2004  
(*Estágio de Instrução e Preparação de Oficiais Temporários - EIPOT*)  
Officer Candidate with the highest grade in the State of Sao Paulo in the military professional internship, 2nd Military Region, Brazilian Army.
1. **2nd Place (of 25) at Army Reserve Officers' Training Corps - Basic Course** Dec. 2003  
(*Núcleo de Preparação de Oficiais da Reserva - NPOR*)  
Officer Student with the second highest grade. NPOR Campinas-SP, Brazilian Army.