Allan **Quadros**

QUANT DEVELOPER
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About

I have 3+ years of experience researching, developing, and implementing trading algorithms, and 6+ years of proven track record of success as a data scientist. In the last 3 years, I have been working as a quantitative developer and quantitative researcher in the financial sector, developing and implementing trading algorithms. My expertise includes statistical arbitrage, stochastic control, data mining, forecasting, classical and Bayesian Inference, optimization, machine learning, and deep Learning algorithms. Besides that, my experience as a financial advisor aligned with my background in economics allows me to develop down-to-earth algorithms. I am comfortable with adapting theory to the real world and I can transit seamlessly between academic papers and production-ready algorithms. My Ph.D. research is focused on the application of reinforcement learning in statistical arbitrage strategies. Lastly, all my aforementioned expertise is complemented by my strong coding skills in R, Python, C++, SAS, and SQL, and my experience with cloud solutions such as Azure and AWS, as well as containerization and orchestration tools such as Docker, Podman, and Kubernetes.

Education

Kansas State University — *Manhattan, KS*
Ph.D. in Statistics | Expected to graduate by 2024 — *2021-present*

University of Brasilia - UnB — *Brasilia, Brazil*
Bachelor's degree in Statistics | Recipient of the 'Outstanding Student Award' — *2018*

State University of Campinas - UNICAMP — *Sao Paulo, Brazil*
Master's degree in Economic Development — *2012*

State University of Campinas - UNICAMP — *Sao Paulo, Brazil*
Licenciatura in Geography — *2008*

Experience

Quantitative Developer | Quantitative Researcher — *Brazil*
Working as an external consultant for asset firms and hedge funds — *Dec. 2020 - present*

FGV Management — *Sao Paulo, Brazil*
Invited Lecturer in Advanced Predictive Analysis — *Jul. 2021 - present*

National Fund for Educational Development - FNDE — *Brasilia, Brazil*
Lead Data Scientist — *Jan. 2019 - Dec. 2020*

National Fund for Educational Development - FNDE — *Brasilia, Brazil*
Data Scientist — *Mar. 2014 - Dec. 2018*

National Fund for Educational Development - FNDE — *Brasilia, Brazil*
Finance Specialist — *May 2013 - Feb. 2014*

UniFAJ University — *Sao Paulo, Brazil*
Lecturer in Economics — *2010-2013*

RCX - Investments AAI | XP Investments — *Sao Paulo, Brazil*
Registered Investment Advisor — *2011-2012*

Brazilian Army — *Brasil*
First Lieutenant R/2 — *2003-2009*

Selected Software - Quantitative Trading

Exploiter *Language: Python*

Algorithm to operate statistical arbitrage for the pair Ibovespa index vs. USDBRL. The P&L recording track for this algorithm is currently at +17.3%/year as of August 2023. *2023*

Sentinel *Language: Python*

This software uses the reports generated by the LS package to monitor and submit buy/sell orders, under a statistical arbitrage strategy. It can be deployed in several markets, such as NYSE|NASDAQ and B3 (Brazil) stock markets, commodities, Forex, and Crypto. It was used between Jan. 2022 and Dec. 2022 by a Brazilian small hedge fund called BX Analytics as one of its main strategies. The P&L track of this algorithm is at 12.1%/year as of August 2023 *2021*

LS Package *Language: R*

This library deploys several statistical techniques to identify potential statistical arbitrage operations among stocks, commodities, currency pairs and crypto. Some of the techniques used are copulas, stochastic control, cointegration, Kalman filters, and others *2021*

Software - Open Source

onlineretail *[CRAN url]*

Online Retail Data Set *2021*

mRpostman *[Official url]*

An IMAP Client for R *2019*

emstreeR *[CRAN url]*

An R Package for Fast Computing Euclidean Minimum Spanning Trees *2018*

Software - Other

proPNLD *Language: R*

R package developed at FNDE that fits more than 800,000 Holt-Winters Exponential Smoothing time series models to forecast the number of students in each grade in each Brazilian school *2020*

Politweets *Language: Python*

Software developed to perform sentiment analysis on political-related posts from Twitter. *2020*

FisFa *Language: R & Python*

Software developed at FNDE for financial accountability purposes. This software generated savings of approximately US$ 60 million for the Brazilian government between 2016 and 2018. Brazilian Patent: BR 51 2016 000212-3. *2016-2018*

Stat D.O.U. *Language: Python*

Web scraping software that automatically fetches data from the Brazilian Official Gazette *2019*

Data Science Papers

mRpostman: An IMAP Client for R *Link*

arXiv:2301.03350 [cs.NI] *2023*

ROC App: an application to understand ROC Curves *Link*

Brazilian Journal of Biometrics, Volume 40, Issue 2 *2022*

AGN dichotomy beyond radio loudness: a Gaussian Mixture Model analysis *Link*

Monthly Notices of the Royal Astronomical Society, Volume 497, Issue 2, September 2020, Pages 1463-1474 *2020*

Awards and Recognition

University of Brasilia's Honor and Merit Award Nominee *UnB, Brazil*
Nominated by the Statistics Department faculty for the University of Brasilia's Honor and Merit Award - an honor "awarded to a former student that has reached national and/or international recognition for his services to the society". *2020*

Outstanding Student Award *UnB, Brazil*
Honor awarded by the Department of Statistics at University of Brasilia to the student with the highest GPA in the undergraduate program. *2018*

Standout Project in Contract Management *ANGC, Brazil*
Awarded to software 'FisFa' at the 4th ANGC Awards, National Contract Management Association (Brazil) - ANGC *2018*

1st place - Strenghning Internal Controls *CGU, Brazil*
Awarded to software 'FisFa' at the CGU's 4th Contest on Good Practices in Public Administration on the International Anti-Corruption Day, Comptroller General of the Union - CGU *2016*