

Lucas Costa Santos

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Education

Barcelona School of Economics (BSE) - Awarded jointly with Universitat Pompeu Fabra (UPF) and Universitat Autònoma de Barcelona (UAB)

Barcelona, Spain

Master's Degree in Data Science (Data Science for Decision Making program)

09/2022 - 07/2023

- **Thesis:** *Study of text-based data as drivers of the stock price for top 10 pharmaceutical companies per market revenue.* - The project uses unstructured textual data like earnings calls transcripts and press releases, as drivers' predictors of the stock prices using Natural Language Processing (NLP) techniques like Recurrent Neural Networks and BERT models jointly with financial econometrics tools. The study analyzed the 10 pharmaceutical companies in revenue and was done in partnership with Novartis Digital Finance Hub.
- **Supervisor:** Christian Brownlees
- **Relevant Courses:** Economics for Data-Science Decision Making, Machine Learning for Finance, Deep Learning, Data Visualization, Pricing Financial Derivatives, Machine Learning and Casual Inference, Experimental Economics, Advanced Methods in Natural Language Processing.

Universidade Federal da Paraíba (UFPB)

João Pessoa, Brazil

Bachelor's in Economics Science

07/2018 - 06/2022

- **Thesis:** *Building a stock portfolio with fundamentalist strategies in Brazilian market: a comparative analysis between Piotroski, Greenblatt, Graham, and an original strategy* - The work back tested the performance of three of the main fundamentalist portfolio selection strategies, Piotroski, Greenblatt and Graham, in the Brazilian market during 1997 to 2021. Using linear models applied with factor investing techniques the study concluded that traditional systematic methods outperformed the market with statistical significance.
- **Honor:** Highest Cumulative Grade Average of the class (9.5 in general)
- **Excellent performance in math-related courses** - Average grade of 9.87 for the following courses: Math for Economics I, II, III and IV + Financial Math + Statistics + Intro and Econometrics.
- **Relevant Courses:** Math for Economics I, II, III and IV, Financial Math, Statistics, Econometrics, Monetary Economics, Corporate Finance, International Economics, Financial Markets, Applied Finance I and II.

Colégio Madre de Deus

Recife, Brazil

High School

01/2015 - 12/2017

- **Honor:** Valedictorian - student with the highest grade of the school.

Work Experience

TC - TC Matrix

São Paulo, Brazil

Equity Research Analyst

11/2020 - 05/2022

- I co-launched the Equity Research Analyst stream in TC Matrix and grew to more than 40 people in less than 2 years. Designed and implemented a product that generated €130k of MRR (Monthly Recurrent Revenue) after six months of launch and turned out to be one of the top earners for the company in recent years.
- Simultaneously to developing new products, I was responsible for analyzing, writing reports, creating financial models and updating valuations of the companies listed in Brazilian Stock Exchange. Gained recognition due to ORVR3 report for buying stock around R\$23 which led to 50% gain in 6 months for the stakeholders of the product in a difficult time for stocks while the market went up only 2%.
- Writing technical studies in collaboration with economic research team.

TC - TC School

São Paulo, Brazil

Content Analyst

08/2020 - 11/2020

- Elaborate, coordinate the schedule of content in a bigger scale, managing the content material with more than 10 different content producers.
- Teach courses for development of employees from other areas of the company like sales team or journalists.
- Exponentially increased the amount of content generated, for give an example the number of online courses available on the platform jumped from 5 to more than 30.

TC - TC School

São Paulo, Brazil

Intern

08/2020 - 07/2020

- Creating finance related educational content for the platform including articles/blogs/course materials/research studies/analytical reports for clients.
- Managed the administrative tasks such as scheduling and created target plans for content creation based on demand analysis.
- Received an offer to stay full-time before the end of the internship due to good performance.

Universidade Federal da Paraíba

João Pessoa, Brazil

Research Assistant

08/2018 - 10/2019

- Volunteer job in the first moment as support research assistant and in the second year promoted as main research assistant.
- Collecting the data, designing and implementing the research question and methods, writing reports.
- A more detailed view of the research conducted is described in University Projects sections.

University Projects

The Best Guys Finish's First? Performance Analysis of Brazilian companies based on the date which the financial results are released

João Pessoa, Brazil

Universidade Federal da Paraíba

08/2019 - 10/2019

- Analyze with the public companies with better results tend to publish their results before than companies that will report bad results.
- Identifying if effects related previously in other markets like the Post-Earnings Announcement Drift were also detected in the Brazilian Exchange.
- Study cross-sectional, longitudinal, and among all the Brazilian publicly traded companies with data available between 2010 and 2018 to compare the earnings quality using accounting models.

Detecting Insider Trading in Real Time

João Pessoa, Brazil

Universidade Federal da Paraíba

08/2018 - 06/2019

- Develop a methodology to detect abnormal negotiations (evidence of trading using non-public material information - Insider Trading), in real time, in the Brazilian exchange. The method could be extended to other exchanges.
- The theoretical basis of the study is the Grossman and Stiglitz (1980) that attests that is impossible the market is informational efficient, since there is not egalitarian access to information.
- Used the Volume-synchronized Probability of Informed Trading (VPIN) to capture abnormal buy/sell orders and predict, with Machine Learning models, events with high probability of Insider Trading.

Skills

Programming	Advanced level - Python (Pandas, NumPy, Scikit-learn, Tensorflow), R (ggplot2, dplyr), Stata, SQL, VBA (Excel).
Miscellaneous	Shell (Bash/Zsh), LaTeX (Overleaf/R Markdown), Power BI, Excel, Microsoft Office, Git, Financial Database management (Reuters Eikon and Economatica).

Languages

English	Professional proficiency (TOEFL Score: 97)
Portuguese	Native proficiency
Spanish	Fluent

Achievements

2018	Top-Freshman Prize , Awarded to the top 100 university students in a national STEM and language exam. By Organización de Estados Iberoamericanos para la Educación, la Ciencia y la Cultura (OEI)	Brazil
2021	Ceriticate CGA , Only 5,000 professionals have this certificate, legally allows to be a Hedge Fund Manager in Brazilian financial environment.	Brazil
2017	Honor Mention , National Mathematic Olympics, by National Institute of Pure and Applied Math (IMPA).	Brazil
2016	Bronze Medal , State Physic Olympics	Brazil

Additional Experience

Captain of Futsal School team	During 7 years (2010-2017) I was the captain of the Futsal school team.
Media appearances	Invited to interviews and podcasts, (link here for podcast interview).
High School class representative	I was elected class representative in 2015 and 2016 during High School.

References available upon request.