### +44 7423400868 London, UK fontanads@gmail.com

# Bruno Fontana da Silva

**Data Scientist** 

Portfolio: github.com/fontanads linkedin.com/in/fontanads

As a seasoned data scientist with years of in-depth industry experience and an extensive background in academia, I bring a unique blend of technical expertise, strategic thinking, and leadership skills to the table. I have a profound passion for leveraging technology, data analytics, and mathematical modeling to unravel complex business challenges and drive impactful decisions. In my journey through academia as an assistant professor, I honed my abilities in research, complex problem-solving, and project management, which I seamlessly transitioned into the commercial sphere. My graduate work in digital signal processing and stochastic processes laid the groundwork for a deep understanding of analytical models, enabling me to specialize in and innovate upon data-driven strategies. During my tenure at King, a prominent player in the mobile gaming industry, I have worked on multiple projects with relevant impact on the business, including: in-apps purchase analysis and product placement personalization with recommender systems, the design and implementation of analytics tools that drive game feature optimization, the strategic planning and evaluation of A/B tests that measure player engagement and revenue growth. These initiatives have not only enhanced game performance but have also contributed to significant business growth. In my previous experiences, I have also contributed significantly to the success of my employers and teams. In marketing analytics at a leading Brazilian e-commerce platform, I was able to automate and refine data processes while managing stakeholders expectations and demands, directly boosting performance metrics for shopping ads. Throughout, my previous career path as a professor and researcher has fortified my leadership capabilities, allowing me to effectively communicate complex concepts, mentor emerging talent, and manage diverse teams. I am now eager to elevate my career to a senior data science role where I can further influence business strategy, foster a culture of data-centric innovation, and lead teams to break new ground in driving business success. I am particularly interested in opportunities involving monetization optimization, business growth and strategic plan, personalization and recommender systems.

#### SKILLS

| Programming    | Python (5+ years), SQL (3 years, including BigQuery), MATLAB (11 years prior experience in academia)  |
|----------------|---|
| Cloud & DevOps | Google Cloud Platform (GCP - proficient, 2 years), Docker (Competent), Kubernetes (Familiar), Airflow |
|                | (Degular use for data worldflows) (I/CD with Drope (Practical experience)                             |

(Regular use for data workflows), CI/CD with Drone (Practical experience)

Data Science Tools

TensorFlow & PyTorch (for machine learning & deep learning), Scikit-learn, Pandas, Numpy, Scipy (daily

use for data analysis), Prophet & Statsmodels (for time-series forecasting), Matplotlib, Seaborn, Altair, Streamlit and Looker (for dashboards and visualization), PySpark (for large-scale data processing)

**Software Development** Git (3 years), Agile methodologies, Test Driven Development (TDD) with Pytest, Software design patterns,

Poetry (for dependency management), Pyenv (for Python version management)
Data Catalogs, data modeling and ETL pipelines of large-scale data applications

Data Engineering Operating Systems IDEs & Editors

VS Code, PyCharm, Anaconda and Jupyter Lab

Soft Skills Strong project management, Team leadership, Excellent written and verbal communication, Experienced

in teaching and mentoring

Linux, MacOS and Windows

Languages English (Full professional proficiency), Brazilian Portuguese (Native speaker), French (Elementary profi-

ciency)

#### **WORK EXPERIENCE**

Data Scientist

### 08-2022 — Present

### London - United Kingdom

### London - United Kingdom

• Collaborated with cross-functional teams, including the in-app purchases team, to design and execute tests, enhancing the understanding of user preferences regarding pricing options for virtual products in "Candy Crush Saga" (CCS).

- Developed a collaborative filtering recommender system to personalize product placements based on historical purchase data (implicit feedback), impacting user engagement, product discovery and revenue potential in (CCS).
- Led data-driven analysis across "BW3S" and "CCS" game teams, crafting and delivering key reports on metrics such as daily active users, gross revenue, ad revenue, daily paying users, and player interaction to stakeholders.
- Provided several big data analysis using SQL (GCS Big Query) and Python to track app events, which involved evaluating
  completion rates and engaging players with new game features and events.
- Authored Python-based data analytics tools, encompassing data visualization, ETL processes, feature simulation, and forecasting, to support business performance and product analytics functions (e.g. game feature simulation improvements, uplift forecasting panels, model error dashboard analysis and MDE calculator).
- Played a key role in designing A/B testing specifications and custom tracking events for client apps, enabling the rigorous evaluation of new game features and directly influencing game development decisions in "Bubble Witch 3 Saga" (BW3S).
- Enhanced software development practices by integrating continuous integration, rigorous unit testing with Pytest, thorough code reviews, and robust version control practices maintaining high-quality code standards.

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- Automated the maintenance and provided intraday insights for smart shopping campaigns via the Google Ads API, delivering critical business intelligence to the Marketing team and supporting real-time evaluation of marketing metrics.
- Designed and deployed rule-based models to streamline shopping campaign performance by assessing product viability through historical ad spend and ROI data, successfully reducing ad waste and optimizing cash margin.
- Conducted a comprehensive analysis of seller performance within the marketplace to determine regional conversion rates, revealing a correlation between conversion rates and customer proximity.
- Played a pivotal role in the Advanced Analytics team, leveraging data to enhance operations across logistics, supply chain, and marketing.
- Expertly manipulated large datasets using PySpark and maintained sophisticated SQL queries with BigQuery, enhancing data processing and operational efficiency.
- Fostered a collaborative environment through continuous engagement with the Data Engineering team, significantly improving the deployment process and performance of analytics products.
- Maintained high code quality and traceability using Gitlab for version control.
- Delivered actionable insights and strategic reports to executive leadership and operational stakeholders, driving data-centric decisions and advancing the progress of key analytical initiatives. This insight led to initiatives of strategic limitation of ad impressions for small sellers aiming for boosting investment efficiency, overall conversion rates, and local delivery performance.

Data Science Instructor03-2022 — 06-2022Ultima SchoolSão Paulo. SP - Brazil

- Ultima School
   I have developed instructional material (videos and tutorials) for basic Python programming, Python development interfaces
- I recorded live webinars with students using a code-along approach to demonstrate all the basic tools of python programming and basic concepts of statistics.

(such as Jupyter Notebooks, VS Code and Google Colab) and basic statistics for data science beginners.

• I have written the Data Processing module material with 4 chapters focusing on all the basic tools of the pandas library. My material contains practical examples and exercises using an open dataset of Brazilian E-commerce from Olist, available in Kaggle. I also recorded webinars with the students solving exercises and showing how to use pandas operations and table manipulation.

Assistant Professor 03-2017 — 08-2021

Instituto Federal Sul-rio-grandense (IFSul)

Sapiranga, RS - Brazil

- Lectured on a diverse range of technical courses, significantly contributing to the education of future professionals in Electromechanics, Electro-electronics, and Electrotechnics.
- Produced and disseminated educational content, amassing substantial views on the institution's YouTube page, enhancing the program's visibility and student engagement.
- Mentored and advised students in executing high-caliber research projects, leading to successful project conclusions and
  presentations. Notable projects included developing a photovoltaic panel-powered USB charger, creating a machine learning
  algorithm to detect depression symptoms in Twitter users, and implementing a facial detection system for mask usage during
  the COVID-19 pandemic.
- Successfully managed project timelines, resources, and student assignments, ensuring projects were delivered on time and with high quality, fostering an environment of excellence and innovation.
- Coordinated a student music group and produced video training materials on G-Suite tools, demonstrating strong leadership and project management skills beyond the classroom.
- Actively participated in and contributed to internal events and committees, showcasing commitment to institutional service and community engagement, and strengthening interdisciplinary collaboration.
- Collaborated with scientific research and paper publications while co-adivising master students of other institutions in research projects.

#### **EDUCATION**

| Doctorate in Electrical Engineering, Federal University of Santa Catarina (UFSC)         | 12/2019 |
|--|---------|
| Master of Science in Electrical Engineering, Federal University of Santa Catarina (UFSC) | 09/2015 |
| Bachelor of Electrical Engineering, Federal University of Santa Maria (UFSM)             | 02/2013 |

#### **COURSES AND SPECIALIZATION**

Practical SQL Bootcamp for Data Analysts and Data Scientists (Udemy) Credential ID: UC-97e47861-1a36-4c29-a230-cfb73e412551

Aug 2021

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Natural Language Processing Specialization (DeepLearning.AI @Coursera) Credential ID MB4NQGQPTBCF

Oct 2020

PyTorch for Deep Learning with Python Bootcamp (Pierian Data Inc. @Udemy) Credential ID UC-440e0bc2-146d-48ca-8792-186c50bc30ec

Aug 2020

Deep Learning Specialization (DeepLearning.Al @Coursera) Credential ID SB9G4FPJMS8U Jun 2019

#### INTERNSHIPS AND EXCHANGES

Sandwich Doctorate at Conservatoire National des Arts et Métiers (@Cedric Lab.) Paris, France

2018-2019 (5 months)

Academic Mobility at Universidad de Chile (@Postgrado Ingenería Eléctrica) Santiago, Chile 2016 (4 weeks)

Engineering Internship at Fraunhofer IZM (@System Design & Integration) Berlin, Germany

2012 (12 months)

#### **PUBLICATIONS**

- Silva, B. F. d., Le Ruyet, D., & Uchôa-Filho, B. F. (2020). Threshold-Based Edge Selection MPA for SCMA. IEEE Transactions on Vehicular Technology, 69(3), 2957–2966. doi:10.1109/TVT.2020.2966333
- Bertineti, D. P., Canha, L. N., Medeiros, A. P., de Azevedo, R. M., & da Silva, B. F. (2019, September). Heuristic Scheduling Algorithm for Load Shift DSM Strategy in Smart Grids and IoT Scenarios. In 2019 IEEE PES ISGT Latin America (pp. 1–6). doi:10.1109/ISGT-LA.2019.8895488
- da Silva, B. F. (2019, December). Strategies for multistage design of Sparse Code Multiple Access systems (Doctoral dissertation, Universidade Federal de Santa Catarina (UFSC), Florianópolis, Brazil). Retrieved August 11, 2020, from http://tede.ufsc.br/teses/PEEL1927-T.pdf
- Fontana da Silva, B., Silva, D., Uchôa-Filho, B. F., & Le Ruyet, D. (2019). A Multistage Method for SCMA Codebook Design Based on MDS Codes. *IEEE Wireless Communications Letters*, 8(6), 1524–1527. doi:10.1109/LWC.2019.2925801