# Ignacio Mariano Sticco, PhD

# Data Scientist

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scholar.google.com/citations?user=Rb\_GO6oAAAAJ&hl

### **Summary**

Data scientist and PhD in Physics with extensive experience in data exploration and application of predictive models in real-world conditions. Enjoy solving complex problems, while offering simple solutions. Passionate about data analysis and enjoy teamwork. Focus on objectives so that results have the greatest possible business impact.

# Experience

# **Data Scientist & Product Manager**

Aeroterra • 2023-2024

- Led a team composed of 5 data scientists and software developers.
- Contributed to the design, ETLs and deployment of algorithms capable of detecting more than 1000 anomalies per day for the Argentinian Ministry of Security.
- Applied Machine Learning models to make predictions in the drinking water distribution industry.
- Conducted visualizations of georeferenced maritime traffic data comprising approximately 2.5 billion data points, empowering the Argentine Coast Guard to make informed decisions.

#### **Doctoral Fellow**

CONICET • 2018-2023

- Published 8 papers in international scientific journals, with a total of more than 150 citations.
- Programmed numerical simulations to improve panicked evacuations, resulting in a 70% reduction in evacuation time.
- Applied an evolutionary algorithm to optimize parameters within a pedestrian movement model, resulting in a 25% enhancement in model performance compared to prevailing state-ofthe-art models.
- Participated in more than 15 scientific conferences, giving talks, and presenting posters.
- Finished my Doctoral Thesis with the highest grade.

More information at: Google Scholar Profile

#### **Data Scientist & Data Analyst**

Futbol Sites Network • 2018

- Processed, visualized, and analyzed data to improve the performance of the company's web pages.
- Discovered a pattern capable of increasing the Average Time on Site by a factor of 3.
- Created dashboards with KPIs to monitor traffic on more than 30 web pages.

# **University Professor**

Universidad de Buenos Aires & Universidad Argentina de la Empresa • 2017-2024

- Led courses with an enrollment of more than 50 students from all university levels (from first to last year).
- Gave theoretical, practical and laboratory classes both in person and virtually.

#### **Skills**

- Programming: Python (Pandas, NumPy, Matplotlib, Scipy, Sci-kit Learn, among others), SQL, MATLAB, NoSQL (MongoDB).
- **Tools**: Git, Linux, Latex, Jupyter Notebook.
- Visualization: Power Bl.
- Management: Team leadership, Agile methodologies, communication, storytelling.
- Languages: Spanish (native), English (B2).
- **Knowledge**: Statistics, physics, mathematics, research.

#### **Education**

## **PhD in Physics**

Faculty of Exact and Natural Sciences, University of Buenos Aires 2018-2023

## Licenciatura Physics (equivalent to Bachelor + Msc)

Faculty of Exact and Natural Sciences, University of Buenos Aires 2010-2016

## **Projects**

- Developed a RAG Chatbot with LangChain designed to answer questions related to my PhD thesis.
- Programmed an identifier and tracker for pedestrians immersed in a crowd.
- Utilized Natural Language Processing (NLP) to analyze the sentiment of Google Maps reviews.
- Analyzed the centrality of the bus network in the City of Buenos Aires.
- Programmed a neural network from scratch to recognize handwritten digits.

More information at: Personal website

# **Courses & Certifications**

- Workshop on Collaborative Scientific Software Development ICTP Trieste.
- Machine Learning Stanford (Coursera).
- Learning how to learn UC San Diego (Coursera).
- First Certificate in English (B2) Cambridge.

# Interests & Tastes

- Academics: Science, technology, artificial intelligence, finance, economy, and politics.
- **Sports**: Swimming, jogging and calisthenics.
- **Domestic**: chatting (in person), drinking coffee, walking, going to the beach, reading, cooking.