Juan Ignacio Beiroa

Data Scientist with a physics and education background

Contact

📞 +5491131949050

✉ jbeiroa@gmail.com

📍 Bs. As. Argentina

🐙 github.com/jbeiroa

in linkedin.com/in/jibeiroa

About Me

Data professional with a background in physics, education, and government advisory. Proven expertise in data analytics, machine learning, Python, and SQL with hands-on experience developing impactful data solutions. Highly adaptable with strong project management and leadership skills, looking to leverage technical and analytical expertise in a consulting role focused on data-driven strategy and operational improvements.

Education

Physics - University of Buenos Aires

2009 - 2019

AI Diploma - Humai Institute

Apr. 2024 - Present

Introduction to AI - Humai Institute

Aug. 2023 - Dec. 2023

Spec. in Education Policies - Pedagogical University

2020 - Present

Core Skills

- **Data Analytics & Machine Learning**: Python (Pandas, Scikit-learn), SQL, Data Visualization (Dash, Plotly)
- **Project & Team Management**: Experience leading cross-functional projects, coordinating teams, and driving curriculum development
- **Technical Competencies:** Git, Excel, Python, Javascript, HTML, CSS
- **Research & Problem-Solving**: Strong analytical skills applied in educational policy advisory, scientific research, and data science
- **Languages:** Spanish (Native), English (B2), French (A1)

Relevant projects and publications

Early Warning System for School Dropout in Argentina   2024

Developed a data-driven Early Warning System for School Dropout using **Python**, creating datasets of 5,000+ students and achieving a 75% classification rate for risk identification (MVP). Built an interactive dashboard for policy impact insights using **Dash and Plotly**.

desercion-escolar-argentina.onrender.com / github.com/lauticouget/desercion_escolar_argentina

Acoustic characterization of an aquarium   2016

Designed and conducted acoustic experiments for behavioral studies in fish, utilizing **finite element simulations** and data-driven insights to optimize experimental setups.

github.com/jbeiroa/Lab7_Fisica_UBA

Research papers

Araujo, V.E.A., Gastien, R., Zelaya, E., Beiroa, J.I., Corro, I., Sade, M., & Lovey, F.C. (2015). Effects on the martensitic transformations and the microstructure of CuAlNi single crystals after ageing at 473K. *Journal of Alloys and Compounds*.

Gastien, R., Corbellani, C.E., Araujo, V.E.A., Zelaya, E., Beiroa, J.I., Sade, M., & Lovey, F.C. (2013). Changes of shape memory properties in CuAlNi single crystals subjected to isothermal treatments. *Materials Characterization*.

Professional Experience

Advisor to the Secretary General   2022 - 2024

Federal Council of Education

Led data collection and fiscal analysis for union negotiations, resulting in a **27% salary increase for teachers**. Conducted complex statistical and financial analyses, using data insights to support strategic decisions and enhance policy outcomes.

Assistant Professor   2016 - Present

University of Buenos Aires

Taught Introductory Physics for Biologists, Geologists and Chemists from 2016 to 2017. Currently teaching Physics and Introduction to Biophysics subject for Medical and Veterinary Careers.

Secondary school Professor and Coordinator   2016 - Present

Currently at Bayard School as Coordinator of the Science and Technology Department, supervising a team of teachers and responsible for curriculum redesign and implementation.

Research assistant   2009 - 2016

CITEDEF

Contributed technical support in electronics and IT, focusing on equipment assembly, calibration, and maintenance, aiding research on CuAlNi shape memory alloys for actuator applications. Co-authored two peered reviewed journal articles.