# Juan Ignacio **Beiroa** | ML/AI Engineer

Bs. As. - Argentina

📱 +5491131949050    •    ✉ jbeiroa@gmail.com    •    ⌨ jbeiroa    •    **in** jibeiroa

## Skills

**Languages**: Python, SQL, Arduino (C++)

**Tools and Frameworks**: Git, PyTorch, Scikit-learn, Dash/Plotly, MlFlow, Docker, Llama, HuggingFace, Pinecone, LangChain, OpenAI API, AWS

**Applications**: Machine Learning, Deep Learning, MLOps, LLMOps, Data Cleaning and Feature Engineering, Model Development and Evaluation, Prompt Engineering, AI System Design, Data Visualization and Reporting, Cloud deployment

## Projects

*Early Warning System for School Dropout (Argentina)*
Built a production-oriented ML system to identify at-risk students (5,000+ records, 75% recall). Designed modular ETL and training pipelines with a domain-driven `src/` architecture and YAML configuration, implemented data versioning (DVC) and experiment tracking (MLflow), and deployed a containerized FastAPI inference API and Dash dashboard on AWS EC2. https://github.com/jbeiroa/desercionAR

*Applicant Tracking System*
Built a Python-based system to parse, analyze and rank candidate resumes using text processing techniques, LLMs and RAG. Managed the project with Poetry and Git, streamlining the hiring workflow and improving selection consistency. https://github.com/jbeiroa/thereisnohr

## Education

**Universidad de Buenos Aires**

*Physics Professor*                                                                                                        *2019*
Relevant work: Designed and conducted acoustic experiments for behavioral studies in fish, using finite element simulations and data-driven insights to optimize experimental setups. https://github.com/jbeiroa/Lab7_Fisica_UBA

Certifications and Relevant Courses

**Datacamp**: AI Engineer for Data Scientists Associate - 2025

**Maven**: AI Builders Bootcamp - 2024, Build Data Apps in Python and Plotly Dash - 2024

**Instituto Humai**: Applied Data Science - 2024

## Professional Experience

**Federal Council of Education**                                                                      Bs. As., Argentina
*Advisor*                                                                                                            *2022–2024*
Conducted data collection and fiscal analysis for salary negotiations between unions national and provincial governments, resulting in a 27% increase in minimum wage nationwide.

**Universidad de Buenos Aires**                                                                      Bs.As., Argentina
*Assistant Professor*                                                                                         *2016–Present*
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 Schools**                                                                                    Bs. As., Argentina
*Professor*                                                                                                        *2016–2025*
Taught Physics, Mathematics and IT/Computer Science in several secondary schools.

**CITEDEF**                                                                                                 Bs. As., Argentina
*Research Assistant*                                                                                          *2009–2016*
Contributed technical support in electronics and IT, focusing on the assembly, calibration, and maintenance of measurement equipment, helping research on CuAlNi shape memory alloys for actuator applications. Co-authored two peer reviewed journal articles.