

Isabel Dominguez Jimenez

Physics, Programmer, Developer, and Data Scientist

Mexico • +52 6671506447 • isadoji@gmail.com

LinkedIn: isadoji404 • GitHub: isadoji

Profile

I am a data scientist and educator with 12+ years of experience in higher education and scientific research. Skilled in advanced programming, data analysis, and machine learning, I bring an analytical approach to solving complex problems. I am enthusiastic about leveraging technology and data-driven insights in a professional setting.

Technical Skills

- **Programming:** Python, C++ (ROOT-CERN), Fortran, Bash.
- **Data Science and ML:** Scikit-learn, TensorFlow, PyTorch, XGBoost, Pandas, NumPy
- **Data Tools:** SQL, Tableau, Jupyter Notebooks, VSCode, GitHub.
- **Operating Systems:** Linux (Ubuntu, CentOS, RedHat), Windows
- **Workflow Tools:** Google Suite, Slack, Trello, Moodle.
- **Languages:** Spanish (Native), English (B2).

Key Projects

- **Data Scientist projects.**
Data preprocessing, data analysis, statistical analysis, and machine learning models. More details can be found on projects
- **Particle Physics projects**
Handled and analyzed complex datasets from high-energy physics experiments using C++ and Python. Published research in scientific journals. More details can be found on my Google Scholar profile.

Professional Experience

Full-Time Professor and Researcher

Autonomous University of Sinaloa, 2013–2024

Key Achievements:

- Taught 50+ courses, including Computational Physics and Optimization.
- Supervised 11 theses (BSc, MSc, PhD) and conducted workshops on data analysis.
- Developed specialized software for scientific simulations.

Visiting Professor

Faculty of Sciences, University of Colima, 2022–2023

Key Achievements:

- Developed machine learning models (Logistic Regression, Decision Trees, Neural Networks) using Python.
- Enhanced data analysis workflows in high-energy particle physics experiments.

Postdoctoral Researcher

Nuclear Sciences Institute, UNAM, 2011–2012

Key Achievements:

- Optimized Monte Carlo simulations in C++ for high-energy physics research.

Education

Bootcamp in Data Science

TripleTen, 2024

Hands-on training in data analysis, predictive modeling, and visualization, using Python.

PhD in Physics

National Autonomous University of Mexico, 2011

I specialize in Monte Carlo simulations and high-energy particle interactions.

Master's in Physics

CINVESTAV, Mérida, 2003

Bachelor's in Physics

Autonomous University of the State of Morelos, 2001

Awards

National Research System - CONAHCyT

Level II (2023–2027)

Desirable Profile for Full-Time Professors

(2023–2026)

Academic Group, Consolidated Level

"Decision Support Systems" (2022–2027)