

FRANCISCO MUÑOZ-GUAJARDO

Data Scientist & Mathematical Engineer

CONTACT

-  framunoz.github.io
-  fmunoz@ug.uchile.cl
-  github.com/framunoz
-  linkedin.com/in/femunozg

ABOUT ME

Master's in Applied Mathematics with experience in solving problems across various fields, including transportation, healthcare, education, and mining. I have utilized data science tools, deep learning, machine learning, image processing, and programming methodologies. I stand out for my proactivity, creativity, and continuous learning approach.

EDUCATION

Mar 2022 - Oct 2024
UNIVERSIDAD DE CHILE

- M.Sc. in Applied Mathematics

Mar 2017 - Oct 2024
UNIVERSIDAD DE CHILE

- Mathematical Engineering
- Minor in Computer Science

SOFTWARE

- Advanced: Python (pytorch, sklearn, pandas, geopandas)
- Intermed.: Java, SQL
- Basi: Git, Julia, Excel

LANGUAGES

- Spanish: Native
- English: Intermediate (B1, TOEFL ITP)

PROFESSIONAL EXPERIENCE

Centro Nacional en Inteligencia Artificial (CENIA)
Contract-Based Position

Oct 2024 - Jan 2025

- Analyzed, processed, and generated a satellite image dataset to predict wildfire evolution in Chile using Geopandas and Google Earth Engine.

Centro de Modelamiento Matemático
Researcher & Thesis Student

Dec 2022 - Oct 2024

- Implemented Stochastic Gradient Descent for the computation of Bayesian Wasserstein Barycenters applied to image sets.
- Developed a library providing algorithms for Bayesian barycenter computation.
- Implemented generative neural networks based on Wasserstein distance.
- Developed a library to obtain the Quick, Draw! dataset.

Correlation in Inclusive Methodologies
Freelance

Nov 2022 - Jan 2023

- Conducted a statistical analysis to determine the correlation between inclusive teaching methodologies and the academic performance of primary school students.

SimpliRoute
Data Science Internship

Jan 2021 - Mar 2021

- Developed algorithms for detecting anomalous georeferenced data using clustering methods.
- Implemented an intelligent service time detection method and deployed statistics for analysis and decision-making.

SARCAN
R&D Engineer & Internship

Jan 2020 - Aug 2020

- Researched optimization methods for intercity transport supply.
- Designed the framework for problem-solving.
- Developed optimization models for route optimization.