

Gary Vidal

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Profile

AI - Machine Learning Engineer with experience building machine learning systems, from data pipelines to deployment. Strong in Python development and applied ML, with hands-on work in computer vision and NLP.

Skills

Languages: Python, C++, R, SQL

ML/AI: PyTorch, TensorFlow, Scikit-learn, XGBoost, YOLO, OpenAI API, Ollama

Data & Backend: FastAPI, PostgreSQL, MySQL

Tools: Git, Linux, Gurobi, Jupyter

Spoken Languages: Spanish (native), English (fluent), French (fluent)

Experience

AI Engineer, Centro de Investigación Avanzada en Educación – Santiago, Chile May 2025 – Present

- Built a Python pipeline combining YOLO and LLM-based NLP to analyze 500+ multilingual handwritten student worksheets from 200+ students.
- Reached Cohen's Kappa > 0.7 against human evaluators on multilingual handwritten data.
- Worked with teachers across 5 countries to validate transcriptions and assess classroom use cases.

Machine Learning Intern, Logaritmo Tecnologías de Información – Santiago, Chile Jan 2023 – Feb 2023

- Developed a Python ARIMA model to forecast call volume using 3 years of daily operational data.
- Imputed missing days and evaluated forecasts on a held-out test set.
- Built and deployed a Python Erlang C module with JSON I/O for staffing calculations.

Mining Consulting Intern, Alicanto Labs – Santiago, Chile Jan 2022 – Feb 2022

- Implemented Lane's Algorithm in Python and Gurobi for open-pit mine planning, achieving 80–110% of the value of the company's proprietary solution.
- Added improvements, including convergence criteria and warm-starting, reducing runtime by hours on larger instances.

Projects

Bayesian-CART-Tree github.com/GaryVidalC/Bayesian-CART-Tree

- Implemented a Bayesian CART classification tree in Python using the Metropolis-Hastings MCMC algorithm as a university course project.
- Outperformed a standard Scikit-learn classification tree on the Breast Cancer dataset.

Music-Genre-Identifier github.com/GaryVidalC/music-genre-identifier

- Built a FastAPI service to classify music genres using Librosa and XGBoost, achieving 70% accuracy on the GTZAN dataset after benchmarking SVM, Random Forest, and XGBoost.

Automata youtube.com/@Automata.bandcl

- Founded and led a progressive metal band as a guitarist, producer and manager, independently recording and releasing a 4-track EP on Spotify and Apple Music.

Education

University of Chile – MSc in Applied Mathematics March 2025
GPA: 6.5/7.0

University of Chile – BS in Mathematical Engineering March 2025
GPA: 7.0/7.0

École Centrale Méditerranée – BS in General Engineering (Double Degree Program) June 2021