Nicolás Fredes
22 norte 1125 F-602,
Viña del Mar, Chile
(569) 9899 1704
nico.fredes.franco@gmail.com
Github: // nicolasfredesfranco
LinkedIn: // nicolasfredesfranco
Twitter: // nicofredesfranc

Nicolás Ignacio Fredes Franco

EDUCATION

Federico Santa María Technical University

Valparaíso, Chile

B.S. in Electronic Engineering

M.S. in Electronic Engineering

GPA: 92%
Specialty: Machine Learning.
Thesis: "Protein functions prediction using Deep Learning."

PAPERS & WORKSHOPS

Journal Paper in IEEE ACCESS
DOI: 10.1109/ACCESS.2021.3094723
"HGAN: Hyperbolic Generative Adversarial Network".   *July 2021*

Workshop LatinX in AI at NeurIPS
December 2019 in Vancouver, Canada

SKILLS

PROGRAMMING LANGUAGES

- Python • C • C++ • MySQL • SQL

FRAMEWORKS

- PyTorch • TensorFlow • Pandas
- Keras • Threading • OpenCV
- NVIDIA Deepstream
- Vertex AI Agent Engine
- Google-ADK • LangChain

CLOUD

- AWS • Snowflake • GCP

CONCEPTS

- Machine Learning
- Computer Vision
- Natural Language Processing
- IoT • Forecasting
- Object-Oriented Programming
- Parallel Computing
- GPU-Accelerated Computing
- Generative AI

LANGUAGES

Spanish   Native Speaker
English   Level CEFR C1

EXPERIENCE

JOBSITY
Remote, USA

Lead Artificial Intelligence Engineer
Since January 2026

- Architecting a high-scale Agentic System on Vertex AI to intelligently match 8 million LATAM talents with job opportunities, using LangChain and Google-ADK, deployed via Agent Engine to orchestrate complex industrial workflows.

ZENTA GROUP
Las Condes, Chile

Senior Machine Learning Engineer
November 2025 - January 2026

- Refactored the post-speech processing architecture for an agentic voice-integrated system at CMPC Brazil (Guaíba plant), reducing end-to-end response latency by 85% (from 13s to 2s).

DEUNA
Remote, Mexico

Lead Data Scientist
September 2024 - October 2025

- Implementation of a transformer-based forecasting algorithm for predicting transactional volume time series at multiple levels of temporal granularity. This solution generates forecasts up to two weeks in advance for intervals of 15 minutes, 1 day, and 1 week. In each case, achieving results with an R^2 metric above 0.9.
- Ideated, designed, and implemented a correlation-based model (leveraging mutual information among commercial transaction time series) to identify quantifiable relationships for "Athia," a multimodal generative LLM. This solution provided data-driven "reasoning seeds" for AI agents to explain variable behaviors, using multi-threading and GPU-based processing. It processed data from 15+ variables for KFC Ecuador in around 10 seconds.

SPOT
Santiago, Chile

Computer Vision Engineer
February 2024 - September 2024

- Developed an algorithm (Deepstream) to analyze security cameras in self-checkout areas for retailers such as Walmart Mexico and OXXO. The algorithm generates alerts for possible theft situations, such as people paying for only a portion of their products or passing by without paying. It was capable of processing up to 10 cameras in real time per Nvidia Jetson Xavier, with each camera operating at around 5 FPS. Additionally, the alert delay time on the platform was less than 10 seconds.

EPAM Systems
Remote, USA

Senior Data Scientist
May 2023 - October 2023

- Optimized the product prices for TBC Corporation across both physical and digital outlets by leveraging data analysis, estimating cross elasticities, and developing a decision algorithm for their price strategy.

WALMART Chile
Quilicura, Chile

Senior Data Scientist
November 2021 - November 2022

- Developed an autonomous algorithm (SQL & Python) for e-commerce products prices recommendation. Switching from a manual system with a latency of up to 6 months to daily price changes.
- Implemented Machine Learning (Python) models to evaluate the annual change in the product assortment, increasing the range of products considered by 200%.
- Optimized a code (SQL & Python) for competitors' promotions price recognition, making it 12 times faster and increasing its accuracy from 50% to 80%.

LAMNGEN Ltda.
Valparaíso, Chile

Artificial Intelligence Specialist
January 2020 - November 2021

- Developed an AI algorithm (Python) in IoT devices to replace the fault detection system of a Torre   S.A. production line. Switching from faulty manual registration with 10-minute delays to an automated method of vision algorithms connected to a unified database with real-time data availability with a maximum delay of 1 second and 95% accuracy.