Fabio Fuentes

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Research

Researcher | *Signal in the Noise: A State-Dependent Local Projections Analysis of News Narratives and the Chilean Business Cycle* View
Undergraduate Research at Universidad Nacional Andrés Bello
September 2025 – Present

- Analyzed asymmetric, state-dependent effects of media volume and sentiment on Chilean macroeconomic activity under Advisor Benjamín Villena Roldán.
- Built a longitudinal dataset of 60k articles by developing a custom asynchronous scraper to process legacy HTML schemas from the Wayback Machine.
- Developed an NLP pipeline using Stanford Stanza and Guided LDA to extract consistent narrative indicators from a 22-million-token corpus.

Researcher, CFA Research Challenge 2025 - National Finalists (Team of 5) View
September 2025 – December 2025

- Engineered a bottom-up valuation framework for LATAM Airlines, integrating competitive positioning and risk factors into a 5-year DCF model.
- Modeled earnings by implementing Monte Carlo simulations (10,000+ iterations) to stress-test valuation sensitivities against macro risk factors.
- Estimated demand sensitivity using regression to project revenue; modeled valuation variance across WACC components and growth assumptions.

Work Experience

AI Solutions Engineer (Independent Consultant), DULOX – Santiago, Chile
May 2025 – Present

- Built an automated, conversational agentic workflows for commercial quote processing, structuring unstructured inputs and decision-tree logic to guide LLM-driven dialogues across pricing and technical constraints, increasing response rates from 44% to 100%.
- Architected a Retrieval-Augmented Generation (RAG) system using a custom hybrid search algorithm combining BM25 and vector embeddings.
- Optimized retrieval latency to 5x faster than standard vector search while maintaining 70% factual accuracy on technical documentation.
- Developed and deployed a real-time sales dashboard using Next.js, Supabase, and Vercel.

Growth Analytics & Data Strategy (Intern), Fraccional – Santiago, Chile
May 2023 – Apr 2025

- Engineered automated ELT/ETL pipelines in SQL and Python to ingest high-frequency event data into Metabase and Posthog.
- Applied K-Means clustering to behavioral data to define customer segments, resulting in a 15% improvement in marketing ROI.
- Built churn-risk and CLV models to inform budget decisions and real-time KPI dashboards, and led rapid A/B testing on pricing and discounts, driving a 5% increase in new user investment while stabilizing churn.

Education

Universidad Nacional Andrés Bello, (Bachelor's of science in Economic and Administrative Sciences) – Santiago, Chile
2021 – 2025

The Mayan School, High School Diploma in Sciences and Humanities – Tegucigalpa, Honduras
2008 – 2020

Skills & Tools

Business & Finance: Financial Modeling (DCF, Valuation, Projects), Financial Statement Analysis, Quantitative Methods (Monte Carlo, Regression, Econometrics), CAC/CLV/CAGR Models, Excel/Google Sheets

Programming & ML/AI: Python (ETL, NLP, Clustering), SQL, RAG Systems, N8N, Supabase, R

Web & Deployment: Next.js, Vercel, Docker, AWS, Distributed systems

Data & Analytics: Posthog, Metabase, DBeaver, Google Workspace

Languages: Spanish (Native), English (Bilingual), Portuguese (B2), Italian (B1)

Courses

- IC Mathematics for Machine Learning (Linear Algebra, Multivariate Calculus, PCA)
- Google Project Management: Professional Certificate, Coursera
- Private Equity and Venture Capital, Coursera
- JPMorgan Chase Asset Management Virtual Experience Program
- Business Costing, Coursera