

Francisco Yir Albornoz | Data Scientist

- **Status:** Student of Applied A.I. Solutions Development at George Brown College
- **Interests:** Visualisation and Dashboards, Machine Learning, Causal Inference and Decision Science
- **Tech stack:** Python, scikit-learn, SQL, R, Bash Shell, AWS, PySpark

➤➤➤ Relevant Full-time Experience

- Data Scientist - MACH (Fintech) Aug 2022 - Jan 2024
- Enabled targeting of high-potential users by integrating PySpark models with CRM data through Airflow on AWS.
 - Conceived high-ROI initiatives through ideation and A/B testing process, increasing marketing spend efficiency.
 - Assessed ROI of referral campaigns via advanced causal inference techniques when A/B Testing was not feasible.
- Data Scientist - WOM (Telecommunications) Jan 2020 - Oct 2021
- Guided deployment of new network infrastructure, identifying areas where upgrades would reduce churn the most.
 - Tracked network deployment results via geospatial dashboards blending network KQIs with churn and NPS metrics.
 - Boosted conversion of telesales by developing purchase propensity LightGBM models using H2O framework.
- Data Scientist - Walmart Chile (Retail) Oct 2018 - Jan 2020
- Enabled targeted marketing through customer clustering, predictive churn models and custom SQL pipelines.
 - Developed internal R package to facilitate the delivery of advanced analyses, like market basket data mining.
 - Measured targeted campaigns' impact rigorously through A/B Testing and small-sample-size correction techniques.
- Data Analyst - Walmart Chile (Retail) Nov 2017 - Oct 2018
- Provided data-driven insights to marketing and merchants, leveraging econometrics and clear storytelling.
 - Automated complex, ad-hoc reports through R Markdown (now Quarto), increasing throughput of our team.
 - Assessed the impact of key, C-level decisions via causal inference techniques such as Difference in Differences.

➤➤➤ Formal Education

- Postgraduate Diploma in Applied A.I. Solutions Development - George Brown College Dec 2024 - Jan 2024
- A one-year graduate certificate blending computer science, math, and business to develop A.I. solutions.
- Diploma in Applied Econometrics - University of Chile, Faculty of Economics and Business May 2021 - Aug 2020
- 10-month program covering experimental design, causal inference with observational data and time series analysis.
- Diploma in Big Data - Pontifical Catholic University of Chile, Faculty of Engineering May 2018 - Aug 2017
- 144-hour program about the fundamentals of ML, recommenders, Hadoop, parallel computing, and graphs.
- B.S. in Economics - University of Chile, Faculty of Economics and Business Dec 2015 - Mar 2010
- Graduated with distinction. 5-year program.

➤➤➤ Self-Learning and Certifications

- Enterprise Design Thinking Practitioner Badge - IBM Feb 2024
- IBM credential in applying design thinking principles for user-centric research, problem-solving and product design.
- Big Data with PySpark - DataCamp Jun 2023 - Dec 2023

- ▶ 24-hour track on PySpark, covering from the basics to predictive modelling and recommendation engines.

AWS Cloud Practitioner Certification - AWS Training and Certification Aug 2022

- ▶ Proven proficiency with AWS Cloud fundamentals: services, economics, security, architecture, and support.

DevOps on AWS Specialization - Coursera Jan 2022 - Mar 2022

- ▶ 30-hour track on DevOps concepts such as CI/CD and test automation, with hands-on practice on AWS.

Hierarchical and Mixed Effects Models in R - DataCamp Jun 2018 - Jul 2018

- ▶ 4-hour course on random effects modeling for nested and longitudinal data with 'lmer' in R.

Blog Series about Causal Inference with R - Project Available on My Portfolio Jun 2022

- ▶ Explainers I wrote about causal inference concepts and techniques, such as Matching and A/B Testing.

Solutions to Exercises of "Introduction to Statistical Learning" - Project Available on My Portfolio Sep 2020

- ▶ Solved exercises from this foundational ML textbook, covering XGBoost, Regression, SVM, and other algorithms.

Integrating Python and R to analyse my music collection - Project Available on My Portfolio Dec 2021

- ▶ Parsed iTunes XML with Python's ElementTree, then seamlessly bridged R and Python in a single analysis script.

Dashboard on AWS monitoring engagement with politicians' tweets - Project Available on My Portfolio May 2022

- ▶ R Shiny app deployed on EC2 displaying data from Twitter's API. Data was auto-refreshed and stored on S3.

Advent of Code Solutions with R and Python - Project Available on My Portfolio Dec 2023

- ▶ Wrote detailed solutions to puzzles from this global competition, demonstrating coding and communication skills.

▶▶▶ Other Work Experience

Data Science and AI Bootcamp Instructor - Universidad del Desarrollo, Chile Apr 2023 - Aug 2023

- ▶ Delivered 5-hour weekly lectures on machine learning with Python's sklearn and graded students' work.

Optimisation of Advertising Budgets through Marketing Mix Modelling - Marketing Advance Jun 2022 - Aug 2022

- ▶ Utilised Meta's 'Robyn' package to enhance budget allocation and ROI metrics of US digital marketing startup.

Scripting and Automation for Higher Education Survey - Ministry of Education, Chile May 2020 - Aug 2020

- ▶ Automated the creation of forms for education institutions and consolidation of responses into a unified dataset.

Power BI Dashboards Development - KMA Asset (Real estate investment trust) Aug 2017 - Jan 2018

- ▶ Integrated data from multiple CRM sources through R scripts and created dashboards with sales funnel metrics.