Wilmar Sepulveda Herrera

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About Me

Statistician MSc, with over 6 years of experience developing end-to-end analytical solutions based on statistical models, machine learning algorithms, and artificial intelligence for the financial and insurance sectors. Passionate about MLOps, data engineering, teaching, and research. Throughout my career, I have made credit and insurance businesses more profitable and fostered a better data culture.

Education

Universidad del Valle **August 2020 – December 2023**
Master in Statistics, 4.7/5

Universidad del Valle **January 2011 – December 2017**
Statistician, 4/5

Work Experience

Coderland **March 2025– Present**
Lead Data Scientist *Technology*

- Work for ASSA, the largest insurance company in Central America, in collaboration with McKinsey & Company, for the creation of Feature Store and dynamic pricing through Machine Learning.
- Developed and implemented pricing models, churn prediction, and customer lifetime value (LTV) analysis using advanced machine learning techniques.
- Built predictive models to reduce customer delinquency rates, improving portfolio risk management and collection efficiency.
- Developed cost estimation models for auto parts in insurance claims, optimizing claim processing and reducing operational costs.
- Implemented churn prediction models for life insurance using survival analysis techniques, forecasting expected customer policy duration to improve retention strategies.

R5 **March 2022– March 2025**
Leader of Advanced Analytics *Insurtech*

- Lead a team of 5 data scientists, working on Machine Learning, Descriptive Analytics, and MLOps projects.
- Through Machine Learning and descriptive analytics, I improved the SOAT product by intelligently selecting the best risks, achieving a Loss Ratio of 70% vs. 120% of the market, translating into billions of pesos in profits for the company.
- Using unsupervised learning, we better understood our customers and thus improved collection efficiency.
- Using advanced analytics methodologies, we better selected our credit customers, thus reducing metrics like 30-ever and 60-ever.

Excelcredit **May 2021– March 2022**
Senior Data Scientist *Fintech*

- Developed and implemented advanced analytical solutions for credit risk management, including provision calculation models, prepayment prediction algorithms, and customer lifetime value analysis.
- Built customer segmentation models and LAFT (Lavado de Activos y Financiación del Terrorismo) risk assessment systems to enhance compliance and risk mitigation strategies.
- Created automated reporting dashboards and predictive models that improved decision-making processes and portfolio performance monitoring.

Banco de Occidente **Sept 2020– May 2021**
Data Scientist *Traditional Banking*

- Designed and deployed machine learning models for collection optimization and portfolio risk assessment, resulting in improved recovery rates and reduced credit losses.
- Developed predictive models to assess customer cash flow impact during the Covid-19 pandemic, enabling proactive risk management and customer support strategies.
- Implemented data-driven solutions for portfolio normalization and credit scoring, contributing to more accurate risk evaluation and lending decisions.

Universidad del Valle **April 2019– Dec 2019**

Data Analyst *Planning Office*

- Construction of dashboards for the analysis of Saber-Pro tests, using ShinyApps.
- Construction of the 2018 statistical yearbook.
- Loading various university indicators into the SNIES.

Teaching Experience

Universidad Libre - Cali **Nov 2023– Present**

Instructor *Machine Learning Diploma*

- Teach Statistics for Data Science course to 4 cohorts of students, covering fundamental statistical concepts essential for machine learning and data analysis.
- Develop and deliver comprehensive curriculum on probability theory, hypothesis testing, regression analysis, and statistical inference for data science applications.
- Guide students through practical statistical analysis projects using Python and R, preparing them for real-world data science challenges.

Universidad del Valle **Nov 2021– Feb 2022**

Teaching Assistant *Faculty of Engineering*

- Teach the course of Probability and Statistics to Systems Engineering students.
- Teach the course of Fundamentals of Statistics to Agricultural Engineering students.

Comfenalco - PEC **Feb 2019– Jan 2021**

Instructor *Technical Labor*

- Guide affiliates to the compensation fund belonging to the technical labor programs; administrative assistant and accounting assistant (mathematics, data processing, thesis work.)

Tech Stack

Python	**Git**	**Airflow**	**AWS**	**DVC**	**Linux**	
Docker	**PostgreSQL**	**R**	**Jenkins**	**FastAPI**	**Databricks**	**Kedro**

GitHub Projects

Web Scraping MELI | Performs web scraping of the list of all products published on Mercado Libre. Here I certify my knowledge in Web Scraping, Docker, CI/CD, Python.

CAR ETL | I carry out an ETL process where I extract vehicle data, process it with Python, and load it to AWS S3, using GitHub Actions.

CAR PREDICT | I build a machine learning model using different technologies: DVC, FastAPI, Docker, Python.

CAR PREDICT APP | Here I create a web application with Streamlit, which has its own database.

ITSERIES | An R package for analyzing irregularly spaced stochastic processes.

Cluster-APP | In this project, I create an app with Gradio and HuggingFace to classify credit card customers.