



**WILMER MATEO  
HERAS VERA**  
Data Science

Hello, my name is Mateo, and I am a data Science. I specialize in extracting, cleaning, analyzing, and presenting data in various formats and Dashboards. I have experience working with information from a variety of industries, and I am excited to help organizations use their data to improve their operations and decision-making. Additionally, I am a technology enthusiast, especially passionate about artificial intelligence, which keeps me updated on the latest trends and developments in the field. Moreover, I am a highly versatile and adaptable person, allowing me to quickly learn and master new concepts and tools.

## Skills:



Setting aside traditional applications, I have handled Access, MS Project, Sway, and Visio.



I have created tables and queries, as well as connected them to Excel, R, Power BI, and Python.



I have used the APIs of GPT, Whisper, DALL-E, and other open-source models to create various projects.



I have created macros in VBA, tables in Power Pivot, and I have also used advanced formulas and concepts for analysis purposes.



I have developed Dashboards and reports. Additionally, I have executed and Python code within the software.



Mendeley has allowed me to work collaboratively to document the bibliography for research projects.



I have developed automations for Excel, web scraping, machine learning models, and more.



R is an add-on for data analysis in Python, but I have also created Dashboards with R Shiny.



VS Code is my code editor for Python, although I also use it for HTML, JavaScript, etc., but to a lesser extent (as a hobby).



I have developed econometric models and performed descriptive and inferential statistics.



IBM SPSS is another statistical software in which I have modeled regressions, PCA, EDA, and more.



In Google Cloud Platform, I have utilized some APIs to retrieve data and also worked with BigQuery.



In Github, you can find my projects, and it also helps me collaborate with others in programming projects.



I have also managed agile methodologies such as SCRUM and KANBAN.



I have used Bash to a limited extent, although I automated the process of creating directories and cloning repositories from Github.



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mateoheras77.github.io/WEB



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## WORK EXPERIENCE

Abr/2022 - Jun/2022  
Pasante



### BANCO DEL AUSTRO

I carried out data structures to send to control entities. I developed dashboards and reports with the information available in the area mainly.

Oct/2021 - Nov/2021  
Pasante



### IMPORTADORA DISTRIBUIDORA MAKOL ECUADOR CIA LTDA

I provided support in the areas of finance, logistics, and management, mainly in the creation of Dashboards, Data Analytics, and Forecasting model

Jul/2021 - Sep/2021  
Trainee



### BANCO PICHINCHA

Part 1): I carried out activities related to the digital transformation the institution is undergoing, providing support in the implementation of agile methodologies and topics related to user experience.  
Part 2): I offered support to executives of small and medium-sized enterprises (SMEs) in matters related to the acquisition of products by both existing and new customers.

Jul/2014 - Aug/2014  
Pasante



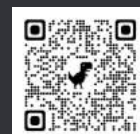
### EMPRESA ELÉCTRICA REGIONAL CENTRO SUR C.A.

I provided support in the commercial area of the institution (as part of the academic year approval process of the Salesian Technical

## HOBBY



## PORTAFOLIO



## CERTIFICATIONS:

Udemy:



- Machine Learning with Python. Advanced Machine Learning
- Master Course in R Studio
- Advanced Financial Mathematics
- Microsoft Excel Applied to Finance
- Scrum Certification Course 2022

365 careers:



- Python for Finance: Investment Fundamentals & Data Analytics



Banco Pichincha:

- Power BI Analysis
- Diploma in Design Thinking
- Advanced Excel



SRI:

- Formal Duties
- Simplified Tax Regime (RISE)



Cognitive Class:

- Data Visualization with R
- Predictive Modeling Fundamentals I

## EDUCATION:

Sep/2017 - Mar/2023

UNIVERSIDAD DE CUENCA  
Economist

Sep/2016 - Jul/2017

UNIVERSIDAD DE CUENCA  
Business Administration Student

Sep/2010 - Jul/2016

UNIDAD EDUCATIVA TÉCNICO SALESIANO  
Bachelor with a major in Industrial, Electrical Installations, Equipment, and Machinery.

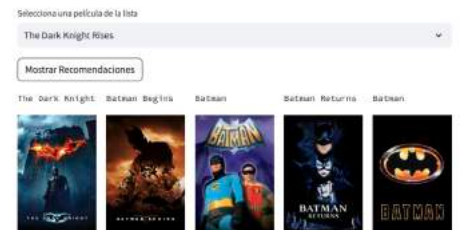
## COMPLETED PROJECTS

### Recommendation system: Case applied to films

Complete an innovative recommendation system project that uses Machine Learning techniques to deliver personalized recommendations from films based on attributes such as actors and directors. This versatile approach not only revolutionizes the way movies are browsed and selected, but also has **commercial potential significant**. By applying these techniques to products retailers, financial services and more, the Companies can optimize the customer experience by offering personalized recommendations, increasing sales and creating a strong relationship with consumers. With benefits like advanced personalization, improved customer experience, and continuous adaptability, the system promises to transform decision-making in both entertainment and business.

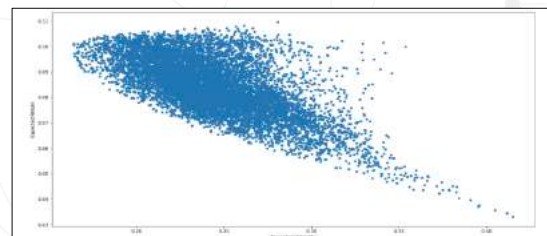


#### Sistema de recomendación



### Creation of an investment portfolio with U.S. stocks.

Creation of an investment portfolio using the Yahoo Finance API and applying Markowitz's theory using Monte Carlo simulations and Brownian Motion.



#### Monte Carlo - Pronóstico de precios de acciones

Movimiento browniano

$$daily\_returns = e^r$$

$$r = drift + stdev \cdot z$$

$$drift = u - \frac{1}{2} \cdot var$$

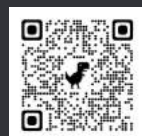
Pronósticos

$$S_t = S_0 \cdot daily\_return_t$$

## HOBBY

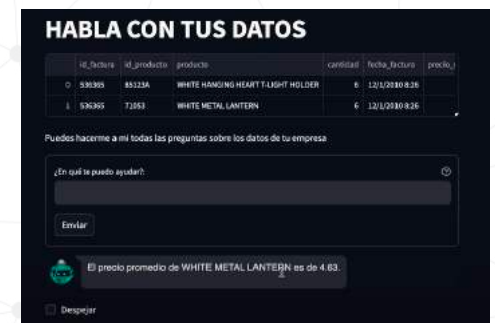


## PORTAFOLIO



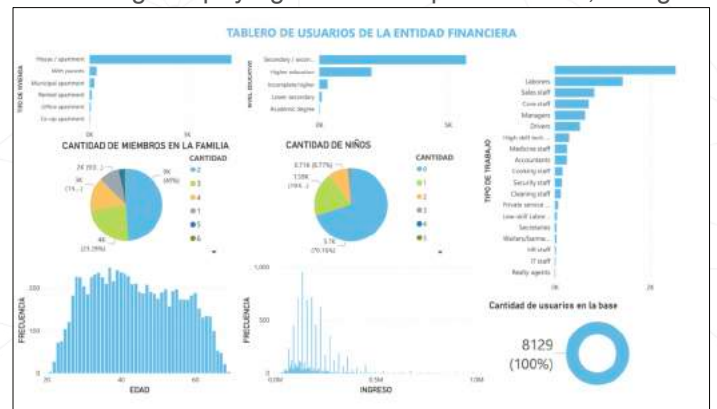
## Chatbot with PDF and Database:

I have developed a project that encompasses efficiency and intelligence in the interaction with complex information. This project features two distinctive chatbots: one capable of reading PDF files and transforming their content into an interactive chatbot, providing immediate and understandable access to crucial data. In addition, I have created a second chatbot that establishes connections with relational databases, allowing queries to be made in natural language and making it easier to obtain accurate and relevant information. This combination of chatbots offers intuitive and fast solutions to address the complexity of data in various formats and sources, transforming the way we access and use valuable information.



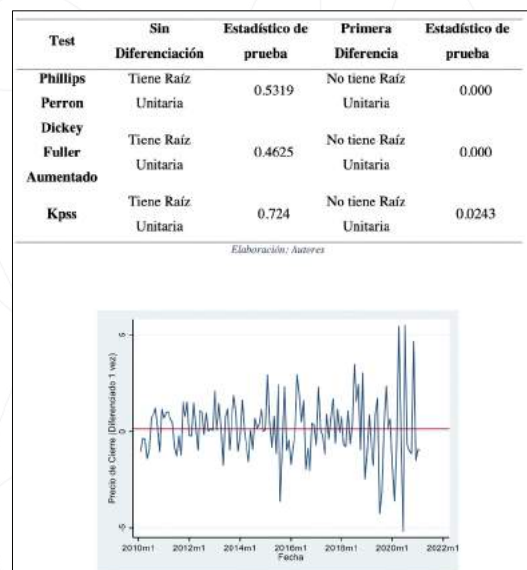
## Prediction for credit card approval.

The objective of this project was to categorize the users of a bank into 'good paying' and 'delinquent' clients, using two unbalanced databases (Base 1 with socioeconomic data and Base 2 with history credit for 60 months) from Kaggle. Given the tagged classes were missing, the approach combined techniques of unsupervised learning such as Agglomerative Clustering, BIRCH, K-Means and Gaussian Mixture Model for identify groups within the data, assigning labels of subjective way. Subsequently, the learning was used supervised, encompassing Linear, Nonlinear and Ensemble Algorithms, to build classification models. This comprehensive strategy made it possible to differentiate the payment behaviors of customers, promoting a better risk assessment within the bank.



## Stock Prediction: Pfizer Inc Case

The research presents an application of the methodology developed by Box and Jenkins to forecast the stock price of one of the leading companies in the manufacturing of the SARS-CoV-2 vaccine, Pfizer INC. The analysis period ranged from January 2010 to February 2021 with monthly data. ARIMA and SARIMA models were analyzed, with the former being the one that best fits the nature of the data.



## HOBBY



## PORTAFOLIO

