Github Portfolio ***Linkedin Profile***

DATA / BUSINESS → ANALYTICS

PORTFOLIO

ORIONIS DI CIACICIO

Predictive data-based and AI-driven solutions for business problems

MEET THE *Analyst*

Hello there, Im Ori!

I'm a hybrid and adaptable profile passionate about turning data into business impact.

I love connecting analytics with strategy: from building predictive models that anticipate trends to applying sentiment analysis to understand customers better, or designing visualizations that make insights crystal clear.

My focus goes beyond numbers; I use data to improve processes, optimize strategies, and drive smarter decisions.

***In short:** I enjoy transforming complex problems into simple, actionable solutions that help businesses grow.*

Python • SQL • R • Git • BigQuery • POWER BI • TABLEAU

GCP • Notion • MICROSOFT • ETL/ELT • APACHE

FROM CONCEPT TO *Creation*

1. Framing the Business Challenge: *This is where the journey begins.*

***I don't start with algorithms or data**; I start with empathy and strategic questioning.*
I sit down with business leaders and stakeholders to understand their "pain points."

- ***"Where are you losing money or time?"***
- ***"What decisions feel like a gamble?"***
- ***"If you had a crystal ball, what would you ask it?"***

The goal here is to distill vague frustrations:
("our sales are down," "our customers are unhappy," "our operations are inefficient")
into a measurable business question that data can answer:

- ***"Can we predict which customers are likely to churn next month?" .***
- ***"Can we forecast demand for our products with enough accuracy to optimize inventory?"***

2. The "Digital Footprints": *Detective mode, but with a creative twist. Every business leaves digital footprints ➡️ transaction records, website clicks, customer service logs, sensor data, market trends*

3. Delivering Actionable Insights: *The "Crystal Ball & Call to Action" Phase* 🚀
The best model is useless if its insights remain trapped.

"Crystal balls are out, predictive models are in."

MY ANALYSIS *Approach*

Every data project I work on follows a structured methodology, ensuring that the analysis is not only technically sound but also aligned with real business needs. →

1. ***Business problem definition****: Clearly defining the business question and the scope of the analysis. The focus remains on creating insights and solutions that matter for decision-making.* ⭐
2. ***Data Extraction:*** *Collecting data from multiple sources (databases, APIs, platforms), ensuring consistency and relevance.*💾
3. ***Exploratory Data Analysis (EDA):*** *Perform descriptive statistical analysis, detect missing values, outliers, analyze distributions, and use visualizations to gain a first understanding of the data.*🔎
4. ***Preprocessing & Feature Engineering:*** *Handle nulls and extreme values, apply transformations (polynomial, logarithmic), encode categorical variables, scale, normalize, and design new variables that capture hidden relationships.*⚙️
5. ***Modeling:*** *Develop and test machine learning models (from classic algorithms to more advanced predictive methods). Balancing complexity with interpretability.* 🤖
6. ***Evaluation:*** *Assess performance with the right metrics, depending on the business problem and data type.*📊
7. ***Deployment:*** *Operationalize the solution by integrating it into APIs, dashboards, or automated pipelines, making it usable for stakeholders.* 🚀
8. ***Visualization & Storytelling:*** *Design dashboards and reports for visual narratives that support decision-making.* 🎨

"Correlation is not causation, but it sure looks good in a heatmap."

FEATURED PROJECT

01

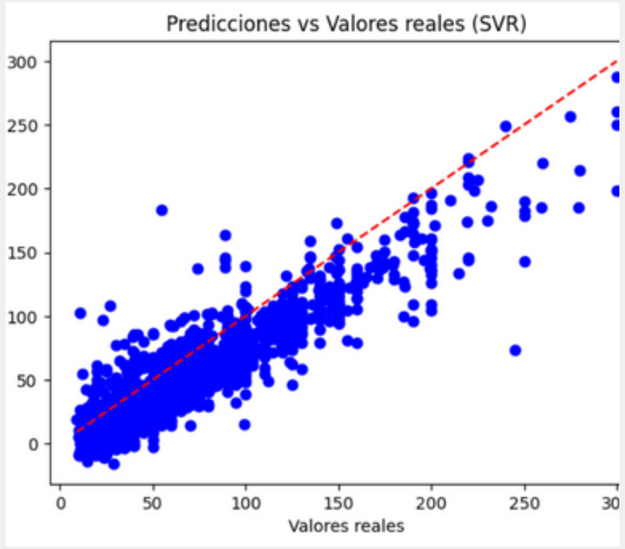
MACHINE LEARNING →

Case Study: Predicting Airbnb Listing Prices with Machine Learning

CHECK OUT DEVELOPMENT

📌BUSINESS CHALLENGE:

Hosts often struggle to set the right price for their listings due to missing or incomplete information (e.g., apartment size). ***This leads to overpricing (fewer bookings) or underpricing (loss of revenue).***



📌SOLUTION:

built a machine learning model that predicts listing prices using available data such as location, amenities, and description ➡️ ***even when some details are missing.***

📌IMPACT & APPLICATIONS:

- ***Hosts:*** *Can estimate a fair price quickly without needing all details.*
- ***Airbnb:*** *Improves pricing consistency, increases host satisfaction, and drives booking conversions.*
- *Real-time pricing dashboard.*
- *Revenue management insights for peak seasons.*

Data from:

airbnb

"Overpriced? Guests disappear. Underpriced? Profits disappear. Let the model decide."

FEATURED PROJECT

02

DEEP LEARNING

Case Study: Multimodal DL model for predicting tourist participation

CHECK OUT DEVELOPMENT

📌BUSINESS CHALLENGE:

The marketing department faced difficulties in identifying which tourist attractions truly generate high engagement, ***limiting the effectiveness of promotional strategies and budget allocation.***

📌SOLUTION:

Using social media data combined with POI(points of interest) attributes, I built a classification system to predict engagement levels. This solution provides marketing teams with ***actionable insights on audience preferences.***

📌IMPACT & APPLICATIONS:

The solution supports smarter decision-making for tourism stakeholders, allowing them to prioritize high-potential POIs, improve visitor experiences, and design targeted promotional campaigns that ***increase overall engagement and revenue.***

Data from:

Artgonuts®

"Backpropagation: the true influencer behind every campaign."

FEATURED PROJECT

03

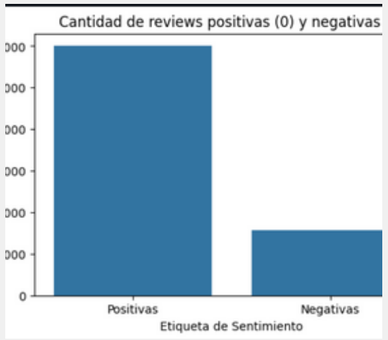
NATURAL PROCESSING LANGUAGE
+ MACHINE LEARNING

Case Study: Sentiment analysis with NLP and ML techniques.

CHECK OUT DEVELOPMENT

BUSINESS CHALLENGE:

Understanding customer sentiment in reviews is critical for product improvement and brand reputation, ***but most of this valuable feedback is locked in free text***



DESBALANCE

SOLUTION:

A sentiment analysis classifier that transforms written reviews into structured insights. Model identifies whether a review is positive or negative, ***even when the text is highly varied (52% unique words) and biased*** *towards positive language*

STOP-WORDS

IMPACT & APPLICATIONS:

- ***Detect dissatisfaction early****, even in a sea of positive reviews.*
- *Monitor brand reputation at scale,* ***without manually reading thousands of comments.***
- *Support product & service improvements with data-driven insights.*
- *Apply NLP in other areas like customer service, hospitality, e-commerce, and employee feedback.*

Data from:

amazon reviews

"Beyond numbers, gaving words a voice in decision-making."

FEATURED PROJECT

04

MACHINE LEARNING + MLOPS

Case Study: Severity prediction of traffic accidents with ML

CHECK OUT DEVELOPMENT

📌BUSINESS CHALLENGE:

Road safety represents a critical challenge for governments, insurers, and transportation agencies. ***Traffic accidents generate high social, economic, and human costs****, particularly due to the difficulty in early identification of incidents with a high risk of severe injury.*

📌SOLUTION:

Built a smart system that ***learns from past accidents and environmental factors*** *to predict where and when serious accidents are most likely to happen. This will allow the city to proactively* ***send help, fix road issues, and run safety campaigns in high-risk areas*** *before accidents occur, saving lives and resources.*

📌IMPACT & APPLICATIONS:

- ***Faster, Smarter Response:*** *The system predicts serious accidents quickly, helping emergency services get to critical situations faster and saving lives.*
- ***Better Planning:*** *It also helps cities and insurers make smarter decisions about road safety and resource use.*

Data from:

kaggle

"I don't predict the future, I just classify it: minor or severe."

LET'S WORK *Together!*

I believe that every complex problem, regardless of industry, holds the seeds of a smart, predictive solution waiting to be uncovered.

This entire framework is a continuous loop of learning, innovation, and strategic application.

My goal is always to transform complex business challenges into simple, actionable, and truly ***impactful data-driven and AI-based solutions that not only understand the future but also help shape it.***

Comprehensive services:

- *Definition of Business Problems.*
- *Analytical Maturity Assessment.*
- *Development and Predictive Modeling - Model Interpretation and Explainability.*
- *Design and Construction of Interactive Dashboards and Reports.*

"No data? Then it's not analysis, it's stylish guessing."