

ALEJANDRO ABRAHAM

DATA SCIENTIST & ECONOMIST

06 - 09 - 1993 

Full-stack and end-to-end
Data Science solutions.
Specialized in
Economics, Finance
and Risk Management
phenomena.





IN A NUTSHELL


PASSIONATE ABOUT MY CAREER

- Lived and worked in 4 countries with 4 different cultures.
- Solution oriented, that's why I love consultancy.
- Curious mind, that's why I started as a researcher .
- Passionate about deep understanding of complex phenomena.

CONTACT

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FOCUS AREAS

- Machine Learning Classification & clustering
- Advanced Statistical Modeling (Regression)
- Time Series Modelling (economics & finance)
- Data Funnel Architecture
- Data Storytelling
- Complex Systems Problems setup
- Data Teams Project Management

EDUCATION

BSc. Economics & Statistics

UNCUYO  | 2011 - 16

BSc. Economics & Finance

CA'FOSCARI  | 2017 - 19

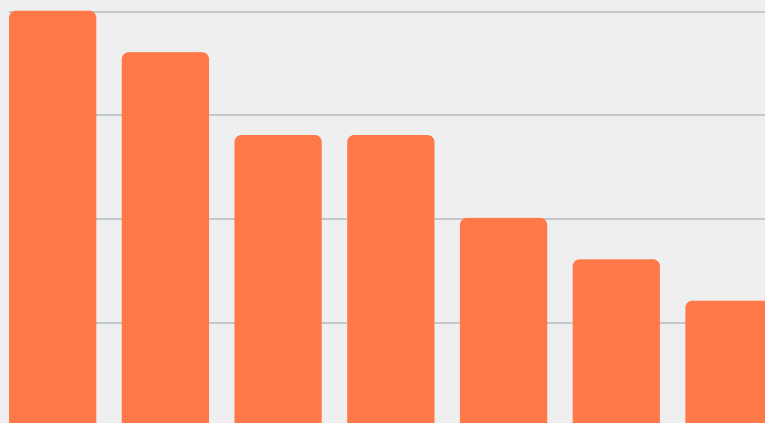
PG Cert. Data Science

JOHNS HOPKINS  | 2019 - 20

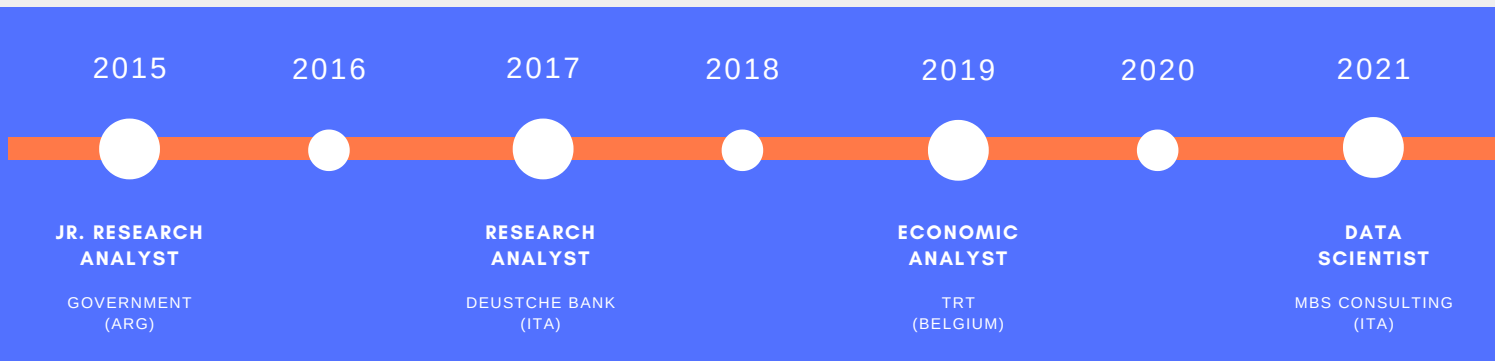
ERASMUS (Overseas)

TH KOELN  | 2017 -

TECH STACK



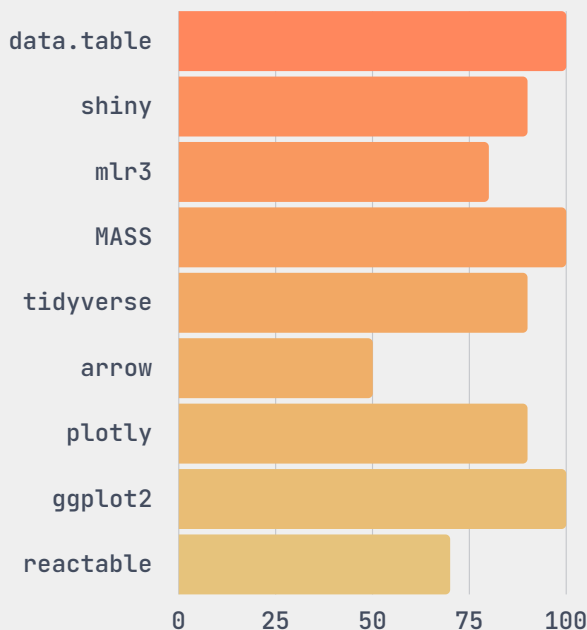
RELEVANT EXPERIENCE



LANGUAGES



R FRAMEWORKS



MISC



Sr. Data Scientist

MBS CONSULTING | 2021- PRESENT

- Machine Learning model desing, development and deployment.
 - Classification & Clustering
 - Avanced Regression
- Statistical Learning & Time Series
 - Hierchical, BNN, SVR, CART, XGBoast
 - ARIMA, VAR, GARCH and enseblings
- Data-Funnel consulting (+ scalability)
- R & Shiny Consulting:
 - Packages & efficient coding
 - Large-scale pipelines & CI/CD.
- Data Visual products
 - GUI Model Deployment
 - Automatic Reporting
- Team Leader (3 people)
- Project Manager

Economic Analyst

TRT | 2019 - 2020

- Advanced Modelling for Macroeconomics w/EU Commission (Econometric, System Dynamics)
 - Technology Impacts on labour Market
 - Public Policy Sensivity Models
- Economic Outlook Forecast and Scenarios

Research Analyst

DEUSTCHE BANK | 2017 - 2018

- Portfolio Risk Analysis (LATAM Fixed Income)
- LATAM Monetary Policy analysis monitoring
- Economic Outlook forecasting modelling tuning
- ARIMA modeling Petroleum Royalties.

> Distinctions

- Full scholarship TH Koeln studies, "Soy Internacional",
- Full Scholarship Ca' Foscari University "International Talent Recruitment.
- ARG Government Distinction "Joven Destacado de la Ciudad de Mendoza" 2015.
- ITA Government Distinction "Presidente dei Giovani della Comunità Italiana a Mendoza" 2013
- Regional Rugby Team – National Tournament 2011

> Relevant Courses

IMFx | Public Debt Sustainability Analysis

- Based on the IMF standards for Statistics gathering, keeping and further analysis towards public debt sustainability.

IMFx | Macroeconomic Forecasting

- Econometric methods and tools for macroeconomic variables forecasting.

Yale University | Financial Markets by Robert Shiller

- Deep analysis on the Pre and Post 2008 crises financial dynamics and political response to it.

Columbia University | Economics of Money and Banking, Perry Merhling

- Holistic approach and new framework to understand the Financial Markets infrastructure and monetary policy mechanisms through financial instruments.

Duke University | Financial Risk with R

- Applied Methods in R for Financial Risk Measurement and Management

Illinois University | Applying Data Analytics in Finance

- Applied numeric and statistical method for financial data in R.

IBM Skills Badge | Data Engineer with Python

- Efficient coding with Python for Data importing, Wrangling, Analysis and Reporting.

DataCamp | Quantitative Financial Analyst Track

- Efficient code for financial data analysis in R and model implementation

Power Purchase Agreements (PPA): Statistical Ramp up and Simulation Platform

- **PROBLEM:**

Our Client had two interconnected issues, first, the model setup was complex enough but it lacked statistical robustness for Risk Calculations and relied on external Scenarios for long-term prediction. The second issue was the deployment of the model was fully on Excel and it took hours to make a single run, propense to human errors or machine timeouts.

- **SOLUTION:**

Together with the client's field expertise the model integrated statistical routines according to the data to adapt the calculations based on its characteristics and not relying on ad-hoc parameters, also missing data imputations with machine learning techniques were included and risk measures were derived not only for market data but also Proxy-Scenario-Operational issues were created to price PPA from an End-to-End risk view.

The resulting platform was a user-friendly and automated GUI that consented the client to arrange raw data inputs and focus on the analysis of the outputs in a couple of minutes reducing cognitive burnout and human errors considerably.

Sales as a Science: Data Driven Playbook implementation

- **PROBLEM:**

A multi million dollar company had a large set of digital products with complex setting and pricing schemas. By gathering client-specific economic data and behavioral usage data the task force had to design KPI's for C-level business intelligence, Usage Scores for Sales Team analyst follow up and alerts, Churn and Propensity models for Sales Team field agents effective effort management .

- **SOLUTION:**

Gathering a team of Strategy Consultants to understand the business need and stakeholders, from the IT department to the Management team, the data collection process was mapped to create a sustainable and automated data funnel that fed the Data Deliverables. The model deployment was designed together with the clients department to be continuously integrated and deployed since inception.

The data deliverables followed a Bottom-Up approach from the clients user base historical record and modelled accordingly to also reflect the Top-Down view from the company's 5 year Strategy. Several tests and assumptions were included to avoid common issues as Survival bias, overfitting and especially a curated process mixing statistical methods and machine learning techniques to avoid black-boxing the deliverables and giving extra focus to communicate correctly to the client the right understanding of each data output created.

> Papers & Seminars

- **Young Transformation Alliance Annual Meeting 2021 @ Munich (H&Z Consulting)**

2 Day meeting with 5 sister consulting firms discussing Business Strategy Sustainability New Approaches with final case study preparation with BMW and SUSTAINX.

- **Internal (Cerved Group) R Course 2021**

Coordinated a intercompany R course for Data Analyst (tidyverse + functional programming). "An R introduction for Power BI and Excel Users".

- **Finance Watch 2017 @ Bruxelles**

Presentation: "Debt monetization New Normal: Advantages of non-inflationary inertia"

- **Festival of Economics 2017 @ Trento**

Presentation: "Macroeconomics of Populism: Argentina, again".

- **A Day as Central Banker 2018 @ Frankfurt**

ECB policy communication simulation lead by PhD Stefano Nardella

- **Global Money Week 2019 @ Buenos Aires**

Co-Organizer, focused on central themes to develop - Argentina Central Bank (BCRA)

- **Education and Wages: the Argentina Case Post Crises**

The Eurasia Proceedings of Educational & Social Sciences (Eviews use) | ISSN: 2587-1730

- **Harmony Project Deliverables (Horizon 2020 EU):**

Literature review for a Modern Approach on Regional Economics Model on Employment
Econometric procedures and Reproducible Research standards (R language use)

- **Bankialia Working Paper on BoP: Transport Costs**

Econometric estimation of costs, distances and volumes for Balance of Payments calculations. (R)

- **Petroleum Royalties Calculation: Public Policy Support**

Statistical modelling and forecasting on the petroleum royalties to support debt issuing tied to them. (ITSM 2000 use)

- **National Government Financing styles in Argentina: 1999-2017**

Summary of almost 20 years of different economic policies and how they reflect on the national accounts.