PEDRO IRABURU

I am a problem solver, a highly skilled individual with a diverse background (Economics, Finance, Statistics and Data Science), who is curious about the world, and whose main strength lies in always delivering the best results, or die trying. Ad astra per aspera.



EDUCATION

2021 2020

Master's Econometrics and Operations Research

Vrije Universiteit

Amsterdam

- · The master focuses on developments in theory, methodology and application of econometric and statistical methods for the analysis of Big Data. I enrolled in two specializations: Financial Econometrics, and Econometrics and Data Science. Currently I am Finishing my Master Thesis in the application of Machine Learning techniques to improve Discrete Choice Modeling.
- · Financial Econometrics Case Study (9/10): "Volatility: Modelling, Measuring, Forecasting, and Simulation". Case Study in Econometrics and Data Science (10/10): "The election game".
- Thesis: Machine Learning and Discrete Choice Modeling (WIP)

2020 2019

Master in Economics: Empirical Application and Policies EHU/UPV

P Bilbo, Spain

- · Learning of the theoretical, empirical, and computational methods that economists use to understand markets and analyze data. Fully taught in English. Academic average of ~9.0/10.
- · Thesis: "Social class segregation in upper-secondary school choice in Canada".. Done in R, using 2012 PISA data, and a multinomial logit model as central axis (9.5/10)



Degree in Economics

University of Malaga

- Malaga, Spain
- · Thesis: "Computable Dynamic General Equilibrium with free hardware and software", with honors (10/10), done in Python with a Raspberry Pi.
- One of the 10 best academic careers of the Economics degree 2015/2019.

2015 2013

Coursed two years of the Double degree in Mechanical and Electrical **Engineering**

University of Malaga

Malaga, Spain

· I had always enjoyed Mathematics and Natural Sciences, so I assumed that engineering would be a fitting a choice. From these two years, I got my interest in programming, as I was taught C++, and although it was highly educational, I realized it was not the right choice for me.



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PROGRAMMING SKILLS

R R

🯓 Python

4 Matlab

VBA

 $^{\mathrm{T}_{\!E}\!X}$ LaTeX

Markdown

III Stata

Made with the R package pagedown.

Code available on 🞧 GitHub

Last updated on 2021-09-27.



Financial Econometrics

- I have enhanced my analytical skills regarding financial data thanks to the VU master's courses. The pure financial courses have taught me plenty about derivatives and how to price them: Black Scholes, Binomial trees, and Monte Carlo methods.
- · In short, I know to use statistical tools for financial questions of relevance, how to approach big data problems in finance and how to interpret and report quantitative findings. Among some of the financial econometric models that I have used are GARCH, GAS, and its variations.

Data Science, Machine Learning, and Business Intelligence

- I have strong quantitative and computational skills, handling a wide array of tools and programming lenguages, from R, Python, Matlab and VBA, to visualization, machine learning, clustering, and evolutionary computing techniques. I have learnt to analyze and understand data from different fields and sources, such as PISA, High Frequency Trading data, or Big Data Startups databases.
- Recently, at my former job, I have automated processes (specifically data extraction) in order to generate reports (Google DS) that provided Business Intelligence to our clients. I also designed and automated a Machine Learning model to predict Startups success, in order to asses the feasibility of potential investments.

Econometrics/statistics

- · I master many advanced econometric and statistical methods: from non-stationary Time series and panel data analysis, State Space models (including the Kalman Filter), VAR, VECM and VMA to nonlinear dynamic models, robust filters, cointegration analysis and estimation of asymptotic properties of general extremum estimators.
- I have a good understanding of the theoretical and practical components of the most popular econometric methods, and how to implement them to large quantities of data to construct models.

Economics

• Game theory, Market Analysis, Micro and Macroeconomics (DSGE models), Monetary Markets, Industrial Organization, Labor Economics... are some of the relevant fields I am profficient in, both from a theoretical and practical approach.

Soft Skills

· My communication skills are excellent, I know how to sell an idea. I present my work in a clear, concise, and structured way, with my results being backed by evidence. I am decisive and adaptable, a man of action. I also love to work in a team, especially if it is diverse. I am also creative and enjoy making presentations and reports.

Social Sciences Component

· Behavioural Economics, Sociology and having studied other topics related to the social aspects of the human psyche, allow me to interpret results where there is a large human component.



WORK EXPERIENCE

2023 2021

Advanced Analytics Young Professional Utrecht, The Netherlands

• Rabobank

- · Description of the Program: In just 18 months, participants become analytics experts by immersing themselves in data analysis, credit modelling, model validation, stress testing, or asset & liability management. They will develop in-depth knowledge in the program's expert sessions and work on personal development in training courses about, for instance, giving and receiving feedback and how to influence others. After a year and a half, AAYPs will be an expert in their field and will remain part of the team, within which they can continue to grow.
- · I will join the Treasury Modelling Analytics & Innovation team. Among my responsabilities I will be involved in the whole chain of making a model: collecting and analysing data, developing and testing methodologies and helping in the implementation; interact with key stakeholders, take account of my analyses through comprehensive documentation, mantain and review models, and analyse their impact on the interest rate risk position.

2021

Data and Analytics Trainee

Amsterdam, The Netherlands

♀ Startupbootcamp/Innoleaps

- · Since I was eager to get my quantitative skills to work, I applied to Startupbootcamp (top startup accelerator in Europe), and started to work part-time in February, full time since March until August, while I continued my studies at the VU. I collaborated with three departments, Data Analytics, Product, and Research.
- · Among my responsibilities were data extraction and automation, modeling, generating BI reports, researching and presenting projects to clients (corporate) and designing and implementing products (such as a mentoring platform for entrepeneurs).

2019

Consultant Assistant

Malaga, Spain

• PLAYS Consultores

· I spent three months working in PLAYS, a consultancy agency in Malaga city. I mainly did accounting and business analysis.



FUTURE PROJECTS AND PLANS

Career, PhD.

· In order to feel fulfilled, I need challenges in my life. Given this, I intended to work somewhere which met my expectations and where I could develop my career. I already found that. Now, what I intend to do, as a long-term project, is to get a PhD in Econometrics, in a relevant field to my career.



\Pi LANGUAGES

Spanish

Native

English

Full professional proficiency

Cambridge

- · Cambridge English: Advanced (CAE)
- · One school year in King's Bruton, Somerset.

German

Initiate level

♀ Goethe Institut

- · A2 Goethe-Zertifikat
- Two weeks Deutsch course in Garmisch-Partenkirchen.

Dutch

Initiate level