

Rubén López Jiménez

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PROFESSIONAL EXPERIENCE

Catalan Association of Developers and Builders (APCE)

Head of Research

Barcelona, Spain

10/2022 - Present

- Responsible for the creation and automation with Python of a database consisting of real state KPIs for different geographical levels.
- Responsible for the supervision and validation of annual studies regarding new construction in Catalonia.
- Build and update a web application using Python for reporting main sector indicators in Catalonia and Spain increasing engagement with associated companies.
- Analyzed financial viability of property developments using advanced econometric techniques impacting the decisions of more than 700 associated companies.
- Responsible for creating reports analyzing macroeconomic and real state indicators to provide associated companies with insights about the current and future sector outlook.

CBRE (Real estate consulting)

Data scientist in the Econometric Forecasting team for the Data Science department

Barcelona, Spain

07/2021 – 10/2022

- Responsible for maintaining and updating Spanish real estate and macroeconomics forecasts.
- Collecting macroeconomic and real state data to implement a multiple-equation machine learning model to predict prices, transactions and other KPIs in the Spanish residential market for different regions.
- Building a forecasting model with different macroeconomic scenarios using internal data to predict rental prices for several districts and municipalities in Madrid.
- Creating more than 50 ETL processes to facilitate automation of data ingestion for analysis and modelling.

CaixaBank Research

Junior Data Scientist in the Analytics team for the Spanish Macroeconomics unit.

Barcelona, Spain

09/2020 – 07/2021

- Implemented a Kalman Filter model to build a Nowcasting model for the demand components of GDP and compare its performance to several machine learning models.
- Created a visualization and statistics tool to summarize data on predictions of prices in the Spanish real estate market at the provincial and municipal level.
- Analyzed and supervised the external validity of CaixaBank internal data on credit cards and other economic data.
- Implemented forecasting models to dynamically predict key indicators in the Spanish labor market.
- Analyzed the impact of Covid and Catalonia's rent cap law on rent prices for the main municipalities in Spain.
- Built a GBM model to predict prices in the Spanish real estate market and performed analysis on the effect of each feature on the predictions with Shapley Values.

EDUCATION

Barcelona School of Economics (BSE)

Master Degree in Economics and Finance. GPA: 8.74/10

Barcelona, Spain

09/2019 - 07/2020

Hands-on approach to data analysis and modelling in economics and finance using R and Python:

- Relevant Coursework: Econometric Methods, Machine Learning for Finance, Foundations of Data Science, Advanced Option Pricing and Modeling, Market Liquidity and High Frequency Trading, Financial Econometrics.

Pompeu Fabra University (UPF)

Bachelor's Degree in Economics.

Barcelona, Spain

09/2015 - 07/2019

- Quantitative Finance, Econometrics & Advanced Macroeconomics.

Maastricht University School of Business and Economics

Student Exchange Program.

Maastricht, Netherlands

09/2018 - 01/2019

- Courses focused on finance and entrepreneurship, problem-based learning system.

LANGUAGES & SKILLS

- **Programming Languages and Miscellaneous Technologies:** R (eg. tidyverse, data.table, xts), Python (eg. scikit-learn, numpy, pandas, matplotlib), SQL, Microsoft Office, VBA, MATLAB, Stata, HTML, CSS, JavaScript.
- **Data Science and Machine Learning:** Time Series, Hypothesis Testing, Data Science pipeline (cleansing, wrangling, visualization, modelling, interpretation), Regression and Classification models, A/B testing.
- **Languages:** Spanish (Native), Catalan (Native), English (Cambridge Certificate in Advanced English C1).