LLUÍS NAVARRO

Quantitative Researcher and Data Scientist

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EXPERIENCE

Senior Associate, Quantitative Modeller
CaixaBank

Dec 2016 – Present | Barcelona, Spain

- Validation of Stochastic Pricing Models & Payoff Functions for the Pricing and the XVAs Measurements of the Trading Book.
- Designing Historical Simulation Models compliant with the ESMA-ECB PRIIPS Regulation Requirements for OTC Derivatives & Structured Products.

Associate, Quantitative Analyst
Consultora de Riesgos Financieros–Exoé Financials

Jul 2015 – Nov 2016 | Madrid, Spain

- Development of Credit Risk and Regulatory Fair-Value Models.

Postdoctoral Research Associate
U. Alacant–U. CEU Cardenal Herrera

2012–Jun 2015 | Alacant, Spain

- Research Associate under the PROMETEOII Grant of Excellence.
- Lecturing Mathematics, Quadratic Optimization and Multiple Linear Regression Theory applied to Business Economics.

Analyst, Quantitative Trader
Intelectia Capital

2009 – Dec 2011 | Madrid, Spain

- Algorithmic Trading Quant Analyst based upon Interactive Bokers API (C# and other scripting languages).
- Design and Analysis of several Performance and Risk Generation Engines (statistical backtesting and overfitting control of strategies).

Assistant Professor
U. CEU Cardenal Herrera

Sep 2005 – Dec 2008 | València, Spain

- Lecturing Mathematics, Statistical Methods & Simulation applied to Business Economics and Computer Science Degrees.

TECHNICAL SKILLS

Numerical Methods	●●●●●
LaTeX, Quarto	●●●●●
Python, R, MATLAB, C#	●●●●○
bash, zsh, git	●●●○○
SQL	●●●○○

EDUCATION

Bootcamp Program, Data Science
Datamecum Data Management

2023Q1 | Streaming

- Machine Learning with Python. Data Science at the Cloud (GCP/AWS)
- Sklearn, Keras-Tensorflow, Pytorch. Deep and Reinforced Learning.

PhD, Computational Finance
U. CEU Cardenal Herrera

2013 | València

- With the Iberdrola Award for the Best DEA Thesis.
- With the Doctoral Extraordinary Award, 2014.

MSc, Financial Mathematics
Univ. Autònoma Barcelona

Barcelona

BSc, Physics
Univ. de València

València

RESEARCH INTERESTS

AI for Finance:
- Learning-To-Rank Machine Learning Models for Portfolio Management.

AI for Computational Physics:
- AI for Particle Physics and Earth Sciences.
- Quantum Embeddings for Machine Learning Problems.

MAIN PUBLICATIONS

- Screening Rules and Portofolio Performance (2019). *North American Journal of Economics and Finance*, 642–662.
- A Direct LU Solver for Pricing American Bond Options under Hull-White model (2017). *Journal of Computational and Applied Mathematics* 309(1), 442–455.
- On the Calibration of a Gaussian Heath-Jarrow-Morton model using Consistent Forward Rate Curves (2011). *Quantitative Finance* 11(4), 495–504.
- The Hull-White Model and Multiobjective Calibration with Consistent Curves: Empirical Evidence (2009). *RACSAM Rev. R. Acad. Cien. Serie A. Mat.* 103(2), 235–249.