João Jerónimo

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Summary

UK-based economist with 5 years of post graduate experience in economic research and data analysis. Proficient in R, Stata and Python for economic analysis, statistical modeling, data visualization and causal inference. Experienced in quantitative research, teaching, and policy-related projects. Strong macro-labour foundation, extensive experience working with advanced statistical techniques and high-dimensional data.

Education

Heriot-Watt University *Oct 2021 – Expected Feb 2026*
PhD in Economics (thesis submitted Nov 2025; awaiting defense)

- Research: Applied econometrics, Labour market institutions, Competition
- **Coursework:** Advanced Macroeconomics I and II; Bayesian Econometrics

University of Minho *Sept 2017 – Jan 2020*
MSc in Economics (summa cum laude)

- **Coursework:** Economic Analysis, Econometrics, Financial Economics, Monetary Economics, Banking Economics, Insurances and Actuarial Calculus, Applied Econometrics, Applied Statistics, Advanced Analysis in $\Re$, Differential Equations, Geometry, Discrete Mathematics, Algebra

University of Minho *Sept 2014 – Jun 2017*
BA in International Relations (magna cum laude)

- **Coursework:** Economic Policy, Political Philosophy, European Union Policy and Legislative Framework, International Law, Geopolitics, Citizenship and Nationality, Linear Algebra, Calculus, Mathematical Analysis. Econometrics I, Econometrics II, Physics I, R Programming.

Experience

Doctoral Researcher *Edinburgh, UK*
Heriot-Watt University *Sep 2021 – Nov 2025*

- Wrote logistic and survival regression models to estimate worker- and firm-level outcomes
- Worked with European administrative matched employer-employee data (55M observations) and wrote multiple R, Python and Stata scripts for data visualization and analysis
- Implemented numerical algorithms to accelerate computation of high-dimensional regression models, significantly reducing computational complexity and memory requirements
- Wrote structural economic model to predict response of labour market outcomes to policy changes and exogenous shocks

Research fellow *Lisbon, Portugal*
University of Lisbon *Jan 2019 – Jun 2021*

- Data gathering, cleaning and analysis
- Streamlining data across multiple formats
- Automation of data extraction processes through web scraping using Python, resulting in significant reductions in weekly working hours
- Writing VBA scripts for simultaneous operations in large matrices, significantly speeding up Excel operations required for data analysis

Publications

Interactions between financial constraints and economic growth Jul 2023
J. Jerónimo, A. Azevedo, P.C. Neves, M. Thompson
The North American Journal of Economics and Finance, vol. 67
10.1016/j.najef.2023.101943

Awards

- UK Research and Innovation (UKRI) Scholarship for Academic Merits, 2021- 2024 (£57,711 + tuition)
- National Award for Academic Merits, highest graded national students 2018/2019, MSc in Monetary, Banking and Financial Economics, University of Minho, Braga, Portugal (3170€)
- Excellence Award for Academic Merits, Full Tuition Reimbursement Academic Year 2017/2018, MSc in Monetary, Banking and Financial Economics, University of Minho, Braga, Portugal (625€)
- Excellence Award for Academic Merits, Full Tuition Reimbursement Academic Year 2015/2016, BA International Relations, University of Minho, Braga, Portugal (1064€)

Projects

How to Enhance Forecasts of the Scottish Economy with New Hire Wages and Machine Learning *github.io.com/sfc*

- Independent project where I analyze the core methodology of a Scottish forecasting institution and develop two extensions/changes to enhance forecasting accuracy
- Tools Used: Python

Inflation forecasting with Neural Networks *github.com/ml*

- Wrote and compared the relative performance of three classes of forecasting models - linear regression, random forests and neural networks - to predict quarterly CPI
- Tools Used: Python

Inflation forecasting with Bayesian Econometrics *github.com/ml*

- Partially replicated work of Chan et al (2013) and estimated unobserved components moving average time series models, with and without stochastic volatility, to produce estimates of posterior inflation means
- Tools Used: MATLAB

Bias estimation of lagged IV *github.com/macro*

- Application of Wang and Bellemare (2019) to estimate the least squares and IV bias of specifications using lagged instruments
- Tools Used: R, Stata

Heterogeneous treatment effects *github.com/RSM*

- Ongoing research project. Empirical validation of structural labor demand model. Heterogeneous diff-in-diff across deciles of policy exposure (sectoral minimum wage bite) prior to exogenous policy shock. Data visualization
- Tools Used: R

Technologies

Languages: R (tidyverse, plm, lme4, dplyr, fixest), Stata, Python (pandas, scikit-learn, NumPy, beautifulsoup), MATLAB (BEAR toolbox), SPSS, SQL, HTML + CSS

Data software: Excel, VBA, PowerBI (beginner)

Methods: Causal inference, linear regression, panel data, time series