

Yoan WALLOIS | Ph.D in Economics and Data scientist

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As a recent PhD in economics, I specialize in data management, big data analysis, and applied machine learning, with advanced proficiency in R and Python. I developed a global index for environmental policy stringency, analyzing over 70,000 pieces of legislation using econometric methods, text mining, and machine learning techniques. My expertise also includes web scraping, dynamic data visualization (graphs, word clouds, and maps), and efficiently handling large datasets to derive actionable insights. With a strong foundation in quantitative methods and project management, I am well-equipped to deliver data-driven solutions in professional settings.

Education

PhD in Economics: University of Lille - Lille Economy & Management (UMR 9221), Oct. 2019 - Dec. 2024, Villeneuve-d'Ascq. *"Text mining and political economy : New applications to finance and the environment".*

- * Data management and data visualization (charts, word clouds, interactive maps), big data, applied machine learning, text mining, web scraping, prompt engineering.
- * Applied econometric and simulation methods for climate-related and economic policy issues.
- * Machine learning methods applied to quantitative data (random forest, SVM) and textual data (LDA, BERT).
- * Deep expertise in environmental and climate challenges (mitigation & adaptation) and related public policies.

Master 2 EIPMC: International Economics, Macroeconomic Policies and Economic Outlook with Merit, 2018-2019, University Paris Nanterre

- * Quantitative methods (econometrics and simulation techniques) in international macroeconomics, international finance, and economic policy.

Master 1 Applied Economics: Specialized in international macroeconomics, with Merit, 2017-2018, University Paris Nanterre

Data processing tools

- **Text mining & ML :** Python (Sklearn, Gensim, TF, Keras); R (mlr, tm, caret)
- **Econometrics :** STATA; R; Python | Time series, Panel data, Spatial econometrics
- **Data management and visualization :** R (tidyverse, ggplot2), Python (pandas, np, matplotlib, seaborn)
- **Collaboration tools :** Python venv, Git, MS suite

Languages

French : Native; **English :** C1 Advanced level; **Spanish :** B2 Certification

Research activities

Published paper: *"Do IMF Reports Affect Market Expectations ? A Sentiment Analysis Approach"*, H. Bennani, C. Couharde & Y. Wallois, Review of World Economics, 2024

Current research activities:

- *A worldwide measure of environmental policy stringency : A text mining approach from legislations*, LEM Working paper series, Y. Wallois, 2024
- *Climate-related Extreme Weather Events and Environmental Policy Stringency*, F. Huart and Y. Wallois

Academic activities

Teaching assistant: Sep. 2020 - Sep. 2024, FaSEST - University of Lille

- Master level - Estimation methods with R
- Bachelor level - Intruduction to macroeconomics, International Economics and Growth economics.

Seminar co-founder and co-organizer: Jun. 2023 - Sep. 2024, LEM Doctoral Seminar Series

Laboratory board member: Jan. 2023 - Dec. 2024, Lille Economy and Management — (UMR 9221)

Referee activity: Since Apr. 2021, Journal International Economics

PhD Students' representative: Jan. 2021 - Dec. 2022, SESAM Doctoral School

Research assistant (internship): Feb. 2019 - Sep. 2019, EconomiX-CNRS (UMR 7235), Université Paris Nanterre