# AYMERIC VIÉ

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## EDUCATION

**PhD in Mathematics**, University of Oxford 2020 - 2024

**Master in Economics**, Paris School of Economics 2018 - 2020

**Master in Economics & Political Science**, Sciences Po St-Germain-en-Laye 2014 - 2019

**Bachelor in Law**, University Paris Pantheon Sorbonne 2014 - 2017

## EXPERIENCE

**Quantitative Researcher**, Oxford Asset Management (full time) 2024 - . . .

**Quantitative Researcher intern**, Oxford Asset Management (3 months) 2024

**Senior Quantitative Analyst**, Oxford Alpha Fund 2022 - 2023

- Led OAF quant division research and created US equities strategies based on 13f holdings data
- Created self-adaptive-threshold RSI trading strategy on BTC, backtesting and parameter optimisation
- Created a quantitative trading strategy around BAT payout dates, statistical analysis and backtesting

**Analyst (short industry project)**, Fidelity Investments - Global Asset Allocation Research 2021

- Predicting the breaking-down risk of a carry trade strategy, extracting signals from strategy and FX data

## TEACHING EXPERIENCE

- Financial data analysis in Python (University of Oxford MSc in Computational Finance)
- Asset pricing (University of Oxford MSc in Computational Finance)
- Python (Oxford Internet Institute)

## PHD RESEARCH

Building a 1:1 scale agent-based model of the US stock market for trading strategy search and forecasting stock returns and volatility. The simulation includes 6,000 mutual funds, hedge funds, banks, ETFs, pension funds, households, and 5,000 real stocks with historical fundamentals.

- **Towards evology: a market ecology agent-based model of US equity mutual funds** (ICAIF 22 and ICLR 23) with Farmer J. D. (Article)
- **Evology: an empirically-calibrated market ecology agent-based model for trading strategy search** (ICML 22) with Farmer J. D., Scholl M. and Kleinnijenhuis A. (Article)

## RESEARCH AND PUBLICATIONS

**Personal research** Since 2016, I authored 19 articles, counting 195 citations in various quantitative domains, won several awards and gave 26 conference presentations (Full list). Most notable papers include:

### Genetic algorithms and evolutionary computation

- **Population network structure impacts genetic algorithm optimisation performance** (2021) in GECCO 21 Proceedings (Article; GitHub)
- **A genetic algorithm approach to asymmetrical Blotto games with heterogeneous valuations** (2021) Master thesis developing GA search to solve mathematically intractable game theory problems (Article)
- **Qualities, challenges and future of genetic algorithms: a literature review** (2020) with Farmer J. D. and Kleinnijenhuis A. (Article)

- **Emergence of more contagious COVID-19 variants from the coevolution of viruses and policy interventions** (2021) in ALIFE 21 Proceedings (Article)

**Networks and risk**

- **How connected is too connected? Impact of network topology on systemic risk and collapse of complex economic systems** (2021) With Morales A. in *Computational Economics* (Article)
- **Deglobalization in a hyperconnected world** (2020). With Balsa-Barreiro J., Morales A. and Cebrian M. in *Nature Palgrave Communications* (Article)

**Optimisation and goal programming**

- **Cooperation and mobility of workers intra and extra European countries. A two-stage goal programming model** (2020) With Liuzzi D. and Lupi V. in *Annals of Operations Research* (Article)
- **The long-run sustainability of the European Union countries: assessing the Europe 2020 strategy through a fuzzy goal programming model** (2019) with Colapinto C., La Torre D. and Liuzzi D. in *Management Decision* (Article)
- **Toward the realization of the "Europe 2020" agenda for economic growth in the European Union: an empirical analysis based on goal programming** (2019) with Colapinto C., La Torre D. and Liuzzi D. in *Mathematical Modelling in Health, Social and Applied Sciences* (Article)

**Agent-based models in economics & finance**

- **Information selection efficiency in networks: a neurocognitive-founded agent-based model** (2019) in *Network theory and agent-based modelling in economics and finance.* (Article; Poster)
- **Staring at the abyss: a neurocognitive grounded agent-based model of collective-risk social dilemma under the threat of environmental disaster** (2022) with Liuzzi D. in *Journal of Economic Interaction and Coordination* (Article)

**Forecasting**

- **Insights into the accuracy of social scientists' forecasts of societal change** (2023) with Grossman I. et al. in *Nature Human Behavior* (Article)

## SKILLS

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| **Programming** | Python (numpy, pandas, scikit-learn), GitHub, Cython, research software engineering |
| **Machine learning** | Agent-based modelling, genetic algorithms/programming, novelty search,<br>statistical learning (linear regression, regularisation methods), time series |
| **Data** | Data analysis; familiar with CRSP, Compustat, Refinitiv Eikon, IBES, 13f sources |
| **Finance** | Auditing the MIT MicroMaster in Finance (Expected 2024)<br>Developed and implemented own strategies in US/EU stocks and cryptocurrencies |
| **Research** | Problem-solving, modelling, excellent presentation skills |
| **Languages** | French (native), English (fluent), Spanish (conversational) |

## PERSONAL EXTRA-CURRICULAR ACHIEVEMENTS

- Go: competed in the 2024 Open European Championship, three times winner of the 2022 & 2023 BG League
- Touch rugby player & referee at the University of Oxford; competed in national competitions and won the 2022-2023 most valuable referee award