

Sofia Giantsidi

PhD Student in Applied Economics and Management University of Pavia & University of Bergamo DOB: 12 September 1994 Nationality: Greek

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Profile

Sofia is a Ph.D. candidate with scholarship in Applied Economics and Management program of the University of Pavia, which runs jointly with the University of Bergamo.

A fast-learning individual, with a natural instinct of curiosity and analytical thinking keen on the financial market behaviors.

Education

University of Pavia, Italy PhD Candidate in Applied Economics, supervised by Claudia Tarantola October 2021 - Present

The study explores diverse forecasting models for stock prices, recognizing the absence of a onefits-all method. It involves the construction of a Reservoir Computing (RC) model, wherein the internal dynamics are treated as a "black box", for time series predictions. Sequential changepoint detection methods are integrated to effectively uncover profitable intraday trading opportunities. Additionally, the research investigates chaos within the reservoir's dynamics as part of understanding the underlying laws that dictate the reservoir's internal state and influence its predictive performance.

University of Strathclyde, UK MSc Quantitative Finance, Distinction (1:1) September 2017 – September 2018

Master's thesis: Econometrics Analysis of Stock Returns focused on Computation of Value-at-Risk

Modules included:

- Financial Econometrics
- Financial Stochastic Processes
- Derivatives and Treasury Management
- Big Data Technologies
- Evolutionary Computation for Finance

Aristotle University of Thessaloniki, Greece BSc Hons. Mathematics, 2:1 (69.3%) September 2012 – July 2017

Modules included:

- Stochastic Strategies
- Stochastic Processes
- Stochastic Methods in Finance
- Stochastic Operational Research
- Classical Differential Geometry
- Analytic Geometry

- Mathematical Programming
- Deterministic Methods of Optimization
- Computational Mathematics
- Sampling
- Probability Theory and Statistics
- Numerical Analysis

Skills

Programming Languages:

- Python
- LaTeX
- R
- My SQL
- VBA for Excel
- Office Software

Research Interests

- Financial Econometrics
- Machine Learning (Deep Learning)
- Quantitative Analysis

Languages:

- Greek (Native)
- English (Fluent)

<u>Seminars:</u>

- Behavioral Finance (Duke University)
- Game Theory
 (Stanford University

Conferences & Seminars

28-29 April 2022: 3rd Spring Colloquium on Probability and Finance, University of Padova, Department of Mathematics "Tullio Levi-Civita", Padova, Italy

20-21 July 2022: Bernoulli Young Researcher Event 2022, Young Researchers Committee of the Bernoulli Society, Online

27-28 October 2022: International Fintech Research Conference, Politecnico di Milano, Department of Mathematics, Milan, Italy

09-10 November 2022: 2nd Edition of the School Machine Learning of Dynamic Processes and Time Series Analysis, Scuola Normale Superiore, Pisa, Italy

07-08 June 2023: HERMES PhD Workshop 2023, Data Science in Business, Athens University of Economics and Business, Department of Statistics, Athens, Greece

28-30 June 2023: Statistics at Naples, University of Naples Federico II, Department of Political Sciences, Naples, Italy

Employment History

Morgan Stanley, Glasgow, UK Analyst in Securities Lending Group January 2019 – September 2020

Analyst role in the department that deals with collateral movement regarding equity trade. Responsibilities:

- Pre-matching of trades, performance of failing trade management, and daily cash and stock reconciliation ensuring corporation's books and records match external positions. Thus, learnt to operate with concern for detail on a continuously changing and fast-paced environment, that demanded prioritization of workload in order to meet deadlines and deliver work on time.
- Serve as the primary point of contact to Borrowers and Lenders (clients) of securities. Demonstrated strong organizational & risk management skills, understanding of escalation to someone higher in the hierarchy to avoid potential problems and also presented strong communicational skills.
- Ensuring that corporation is not exposed to lenders at the end of the day, meeting deadlines and delivering work on time. Organized, and fast-learner individual with the ability to adapt to new systems adopted by the team.

Interests & Activities

- Sketching and drawing, that help express imagination, relax and calm. An early passion that was further developed through the academic years after attending relevant seminars.
- Cinema and live performances, including stand up comedies.
- Travelling and visiting new places with different cultures.

References

Claudia Tarantola (Supervisor) Associate Professor of Statistics Department of Economics and Management Via San Felice, 5 - 27100 Pavia +39 0382/986213

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