Antoine Kopp

Quantitative Finance Analyst

Causal AI and systematic portfolios

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Experience

2024 - to date — *Paris, France* — **Panthéon Recherche**

Quantitative Finance Analyst: Design, management and marketing of systematic equity portfolios for 200 clients of the financial advisory boutique.

· *Investment process:* Conception and implementation of the proprietary layered processes relying on business-cycle nowcasting, causal inference and reinforcement learning algorithms.

· *IT infrastructure:* Creation of the ETL data pipelines, server-hosted algorithms computing the backtests and track records, Maintenance of the client platforms and AI-enhanced client reporting.

· *Marketing:* Participation in sales sessions and end-to-end client communication through daily reporting, weekly podcasts, monthly investment reviews and community channels. Publication in the *Journal of Risk Management in Financial Institutions*.

2019 - 2023 — *Geneva, Switzerland* — **Pictet Asset Management SA**

- **2022 | Multi-Asset Investment Risk Manager:** Oversight of the CHF 9 bn. Multi-Asset portfolios risks and performances.
  · Leading investment risk and performance reviews for the portfolio managers and the CIO.
  · Design of tailored parametric risk models enhancing portfolio risk management and attribution to support investment decisions.
  · Conception of a performance analysis platform (Python, Tableau) aligning reporting with the Portfolio Management System (PMS).
- **2021 | Quantitative Investment Research:** Mean-variance optimization and factor based modelling (Fama-MacBeth approach) integrating ESG dimensions in systematic portfolios (publication in the *Journal of Risk Management in Financial Institutions*).
- **2019 | Internship in Fixed-Income Investment Risk:** In charge of the computation of the portfolios risks and performances for the:
  · *Money Market* and *Swiss Bonds* franchises,
  · *High Yield* and *Investment Grade* teams.

2018 — *Frankfurt, Germany* — **Commerzbank AG**

Internship in the Market Risk Operations, Strategy and Regulations department to centralize market regulations for portfolio management and trading departments in VBA.

2017 — *Lausanne, Switzerland* — **Swiss Federal Institute of Technology in Lausanne - EPFL**

Teaching assistant in linear algebra.

Education

2026 — *Lugano, Switzerland* — **Dalle Molle Institute for Artificial Intelligence - IDSIA**

Quantitative finance research applying causal-AI algorithms to financial frameworks. The research includes causal discovery algorithms.

2026 *Besançon, France* — **Université Marie & Louis Pasteur**
Research assistant for the Research Center on Economic Strategies.

2018 - 2020 *Zurich, Switzerland* — **Swiss Federal Institute of Technology in Zurich - ETHZ**

- **2020 | Chair of Entrepreneurial Risks:** Master's thesis under the supervision of Prof. Dr. Sornette. Development of an Ising-like agent-based model (C++, Python, linux) involving fundamentalist and chartist traders operating in a fixed income market and reproducing stylized facts of yield curve dynamics. Publication in the *Journal of Economic Interaction & Coordination*.
- **2020 | Department of Mechanical & Process Engineering (D-MAVT):** Master of Science in Mechanical Engineering, Dipl. Ing. ETH.

2018 *Saint Gallen, Switzerland* — **University of Saint Gallen**
Multidisciplinary courses in financial analysis and corporate finance.

2017 *Lausanne, Switzerland* — **Swiss Federal Institute of Technology in Lausanne, EPFL**
Bachelor of Science in Mechanical Engineering.

2013 *Munich, Germany* — **Lycée Jean Renoir**
French High School Diploma with specialization in Sciences obtained with honors.

Technical skills

- *AI algorithms:* Neural networks, k-means clustering.
- *Causal discovery* (Network structure identification from time series): PCMCI, Granger, NN classifiers, eigenvector centrality.
- *Coding skills:* Python, SQL, C++, VBA.
- Bloomberg, Tableau Software, Excel, Claude, MCP servers.
- CFA Program level I (Level II ongoing), Examen AMF (French Markets Supervisory Board).
- Causal Inference (HarvardX & University of Penn), SQL Essentials (IBM), AI (IBM).

Key competences & Values

- Analytical, capacity to solve complex problems and enjoy working with data.
- Strong interpersonal skills able to collaborate with multiple stakeholders across an organization.
- *Fluent languages:* French, German, English.
- Integrity, loyalty, Prudence, Ethics & Accountability.