John Bergerat
Swiss/French, 33

Quantitative Analyst/ Quantitative Trader - Fr/Eng

Alpha Seeker.
Passion for Quant. Research and Quant. Investment.
Skills in Statistics, Mathematics, and Financial Markets.

EDUCATION

2017 – 2020 **Master of Sc. in Finance** – Quantitative Asset and Risk Management – HEC, University of Lausanne
2014 – 2017 **Bachelor in Economics and Management**, GSEM – Minor in Finance – University of Geneva
2011 – 2013 **Superior Technician's Certificate** in **Industrial Design** – BTS - Bordeaux, France
2009 – 2010 **Scientific Baccalaureate** opt. Chemistry/Physics – High School A. Maillol - France

WORK EXPERIENCE

Apr. 2024 - Independent Researcher & Quantitative Trader **— consulting, quantitative-strategy development, and AI-driven models for risk management and investment decisions.**
• Building and deployment of quantitative strategies designed for institutional funds, integrating them with live online API bridges to establish an audited track-record.
• Currently negotiating contracts with prospective counterparties potentially managing multi-million-dollar portfolios, contingent on **continued track-record performance**.

2023 Strategies **Live Performance**:
- Strategy on US stocks: **72% live return** – Long only, no leverage
- Strategy on the Nasdaq 100 Futures: **60% live return – No** Leverage

Apr. 2022 – Dec. 2022 Development of a **factor strategy** (*stocks picking*) with a **56% mean annual return and 1.8 Sharpe Ratio** since 1994 – controlled for Survivorship Bias.

Jan. 2022 – August. 2022 Development of a systematic trading Strategiy with technical filters for the Nasdaq 100 in a 3-minute timeframe. Ready to go live.

Jan. 2022 – March 2022 Development of a **factor quantitative strategy** for the cryptocurrency market to submit to **BOTS.io** company to obtain a partnership contract.

June 2021 – Dec. 2021 ***Internship*** - Quantitative Analyst and Developer - **Lightmove SA**
- Creation of a **Market Scan** that detects arbitrages in the Swiss real estate market - Python
- Participation in the development of a **buy-side portfolio** where CHF 20M is planned to be allocated

SKILLS

Specialization **Quant. Assets and Risk Management** – Factor Investing, Smart Betas, ESG Investments

Academic Master's Thesis: *On The Relevance Of Optimizing Technical Indicators On The US Stocks Markets.*

Theoretical **Financial Market** – Portfolio Theory, Market efficiency, CAPM, options, and Forward contracts
Derivative Products – Futures, Forwards, Options, Mathematical Pricing Models

Practical **Programming** – **Python**, **MATLAB**, **SQL**, R, Stata, Excel, LateX, Datastream, Bloomberg Terminal

LANGUAGES & INTERESTS

French: Native language - English: C1 level – Spanish: Beginner
programming, futsal, football, chess, reading, handball, running

EXTENSION

Practical and Theoretical Work during Master's Degree

Academic Master Thesis - On The Relevance Of Optimizing Technical Indicators On The US Stock Markets.

- Calculation of the **Probability of Backtest Overfitting (PBO)** of Bailey et al. (2015) for systematic strategies applied to the *S&P 500* and the *Nasdaq 100* from 1988 to 2020.
- Assessing the **OOS predictive power of the daily equity risk premium** with the MSPE-adjusted test of Clark and West (2006).
- Assessing the **OOS abnormal returns** according to Harvey et al. (2015) in a model adjusted to correlations and controlled for a multiple testing approach.

Group Work

ESG – Risk Budgeting – Asset Allocation – Assessing the stakes and the profitability of ESG Investment in the US Stock Market regarding the MSCI US Index.

Characteristics of financial time series - *Jarque-Bera Test, Lillieforstest*, *Ljung-Box Autocorrelation Tests*
Multivariate Time Series Analysis - Stationarity and Cointegration Tests - *Dickey-Fuller test*
CAPM and Multi-factor Models - *Wald test, Likelihood Ratio-Test, Fama-French factor,*
Volatility modeling: GARCH models - *Kolmogorov-Smirnoff test, AR, ARCH, GARCH models*
Extreme Value Theory - *Hills estimator*

Individual Work

Risk Budgeting - *Drawdown: from practice to Theory and back again (forthcoming in Mathematics and Financial Economics) Lisa R. Goldberg and Ola Mahmoud.* – Computing the **CED** (Conditional Expected Drawdown)

- Creation of a Financial ***Product*** that delivers not more than the historical mean market return and stores the excess in a reserve to compensate for negative years. The study shows that if invested at the lower points in the market, the product will show a constant 9% annual return from the S&P 500 even in crisis periods, and this, with null volatility.

Fundamental Weighting for the Swiss Market - *Robert D. Arnott, Jason Hsu, and Philip Moore - Fundamental Indexation – 2005*

- Creation of Swiss stock portfolios weighted by fundamental factors such as book value, Cash-Flows, Revenues, Sales, Dividends, etc. This shows that the **sales-weighted portfolio** performs the most from 2003 to 2020 with an average return of **7.79%** per year vs. **4.46%** for the SPI.