

Tom J. Espel

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PROFILE Front office **quantitative trader & researcher** experienced in high frequency trading. My areas of expertise are signal processing and modeling using Data Science. Guest lecturer in Financial Mathematics.

EMPLOYMENT

- 2022 - Present** **eFX Quant Trader, Associate Director (VP), HSBC** - Hong Kong, China
- HKSI M14172. CISI 253637. IEEE Associate 93851893.
 - **Quantitative Trading** Monitoring of live execution and risk-management systems for all the strategies in the eFX team: spot FX, eNDF, metals. HKMA reg. AJ2009. Developed Python and Dash apps, automated emails, bespoke metrics to analyse and report on performance of various strategies.
 - **Quantitative Research** Asian electronic foreign exchange pricing and improvements to the strategies for our book. Data exploration and analysis in KDB q. Prototyping in Python, machine learning models. Implementation of production algorithms in Java with development team. Recognised as *Best Bank for eTrading* at **Asia FX Awards 2024**.
 - Hiring team for the quantitative finance programme. Interviews, selection process and day-to-day running of the programme.
- 2018 - 2022** **eFX Quant, Associate, HSBC** - London, UK
- Junior researcher on G10 and EM. Focus on short-term alphas (tick to sub-second), and work on longer-term strategies (30 minutes and above).
- Summer 2017** **Blockchain Analyst Internship, French Central Bank** - Paris, France
- Developed with a team of 3 several blockchain architectures (ePrint IACR:2017/1093) for Real-Time Gross Settlement using Zero-Knowledge Algorithms.

EDUCATION

- 2017-2018** **MSc in Mathematics and Finance, Imperial College London**
London, UK - Mathematics, Quantitative Finance - with Merit
- Advanced courses in Quantitative Finance, Stochastic Processes, Applied Machine Learning.
 - MSc Thesis: *Electronic Market Making of FX Futures* with Dr Mikko Pakkanen.
- 2015-2018** **MEng Supélec (CS, EEE), École Centrale Supélec (Université Paris-Saclay)**
Paris (Saclay), France - Mathematics, Computer Science, Electronics
- Top French university, advanced courses in Electrical and Electronic Engineering.
 - Courses at **HEC Paris** (France's top business school)
- 2016-2017** **BSc in Economics, Université Paris Dauphine (Université PSL)**
Paris, France - Economics, Econometrics - Licence 'Grande École' - Dual Degree
Dual degree at one of France's top university for Economics and Applied Sciences
- 2013-2015** **French Classes Préparatoires, Lycée Stanislas**
Paris, France - Major in Mathematics and Physics, Minor in Chemistry
- Two-year elite and intensive program in advanced Mathematics, Physics, and Chemistry, preparing for national competitive exams for entry to top French Engineering Schools.

ACHIEVEMENTS

- Guest Lectures** University of Hong Kong (Application of the CAPM to Asian Stocks and ESG Indices, 2024)
Chinese University of Hong Kong (Mean-Reversion Strategies, 2023)
Hong Kong University of Science and Technology (Order Book Dynamics, 2023)
Imperial College London (Market Fragmentation, 2021)
- Selected Publications** ORCID: 0009-0008-0261-9655
- Espel, T.J., 2024. Impact of US Bitcoin ETF Introduction on BTC and ETH Intraday Regime Seasonality, Proceedings of the Future Technologies Conference 2024, Springer.
 - Espel, T., Katz, L. and Robin, G., 2017. Proposal for protocol on a quorum blockchain with zero knowledge. French Central Bank. Cryptology ePrint Archive.
- Certificates** CAIA certificate. Level 1 passed (2024).
1st year of Capacity in Law, Université Panthéon Assas (2015).
- Competitions** Bronze Distinction, French Selection for the Intl. Chemistry Olympiad (top 75 Students).

INTERESTS

- Sports** Certified PT and sports nutrition coach. NASM ICPT and CNC (2023).
- Wine** WSET Award in Wines Level 3 with Merit (2023).
- Music** *Piano*: Cycle II.2 - 9 years. *Music Theory*: End of Musical Studies Cycle II.3 - 7 years.