

## Summary

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- Quant strategist and researcher with 12+ years of experience across sovereign wealth funds (GIC, ADIA), international financial institutions (IMF, ECB), and global macro portfolio managers teams.
- Focus on rates and FX models, portfolio construction, alpha generation, and risk modeling.

## Professional Experience

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**GIC, Lead Quant Strategist, Global Macro, Senior Vice-President** Singapore, since 2023

- Manage a team of 5 quantitative strategists focused on DM/EM rates, FX, and cross-asset allocation.
- Develop and deploy quant models for alpha generation, portfolio construction and risk modeling.
- Quant research: macro nowcasting with high-frequency alternative data, counterfactual scenario analysis, FX fair value modeling, curve dislocation identification, macro regimes classification, and cross-assets arbitrage.

**ADIA, Quant Researcher, Global Macro and Asset Allocation** Abu Dhabi, 2022-2023

- Developed systematic macro signals and models for the Quant team ("Q") covering forecasting, nowcasting, and risk management. Supported ADIA CIO on asset allocation and portfolio construction.

**International Monetary Fund, Quant Macroeconomist** Washington DC, 2016-2022

- Quant macroeconomist, involved in more than 30 country missions covering IMF program negotiations, Article IV, FSAP, technical assistance (including as mission chief), etc.

**European Central Bank, Quant Researcher and Portfolio Manager** Frankfurt, 2013-2016

- Managed Eurosystem RMB and JPY FX reserves, portfolio construction and financial research.

## Education

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**Ph.D. Quantitative Finance**, Peking University & EHESS

*Entire 6-year curriculum completed in Chinese Mandarin in Beijing.*

**M.Sc. Quantitative Macro & Finance**, Ecole Normale Supérieure de Paris-Saclay

*First-ranked at France's national entrance exam (Normalien).*

**M.Sc. in Mathematics and Statistics**, ENSAE Paris

**Undergrad (CPGE)** Henri IV Paris

## Open Source Python Packages

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- Distributional GARCH model to design VaR-based FX Interventions for Central Banks, [Github repo](#)
- Density Forecasting for Macro Variables, [Github repo](#)
- Conditional Density Projection via Quantile Regressions, Resampling and Multifit Models, [Github repo](#)
- Robust Density Estimation via Over-Parametrized Gaussian Skewed Models, [Github repo](#)
- Partial Least Squares Wrapper for Data Reduction based on Scikit, [Github repo](#)
- Quantile Spacing - solving for quantile crossing, from Schmidt and Zhu (2016), [Github repo](#)
- Quantile Local Projections, [Github repo](#)
- Granular Instrumental Variables - from Gabaix and Koijen (2020), [Github repo](#)
- Cluster Analysis Wrapper with Performance Metrics and Visualization Tools, [Github repo](#)

## Academic Research

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- *Financial Conditions in Europe: Dynamics, Drivers, and Macroeconomic Implications*, [IMF WP](#), 2024
- *Technology and the Geography of FX Markets*, [Journal of International Money and Finance](#), 2023
- *FX Interventions: A Risk-Based Framework*, [IMF WP](#), 2020
- *Predictive Density for Global Growth*, [IMF WP](#), 2020
- *Growth at Risk: Applications in IMF Surveillance*, [IMF WP](#), 2019
- *Can Countries Manage Their Financial Conditions Amid Globalization?*, [IMF WP](#), 2018
- *Trading Without a View: Fast Trading, Entropy and Underreaction in the FX Market*, [ECB WP](#), 2018
- *Thick vs. Thin-Skinned: Technology, News, and Financial Market Reaction*, [IMF WP](#), 2016
- *Understanding Household Savings in China : The Role of the Housing Market and Borrowing Constraints*, [Banque de France WP](#), 2014

## Policy Publications

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- *United Arab Emirates: TA Report - Liquidity Management and Forecasting*: [IMF TA report 2022](#)
- *Jordan: TA Report - Forecasting Framework for Currency in Circulation*: [IMF TA Report, 2022](#)
- *House Price Synchronization: What Role for Financial Factors?*: [IMF GFSR 2018](#)
- *Financial Conditions and Growth at Risk*: [IMF GFSR 2017](#)
- *High-Frequency Trading, Information and Market Volatility: the Role of High-Frequency Quoting and Dark Pools*: [ECB FSR 2017](#)
- *The Role of Currency Invoicing for the Transmission of Exchange Rate Movements*: [ECB IRE 2015](#)

## Skills

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- **Languages:** Chinese Mandarin (fluent), English (fluent), French (native)
- **Programming:** Python (CI/CD, packaging, deployment), SQL, R, Git, AWS
- **Databases:** Bloomberg, Macrobond, Haver, CEIC, Wind, etc.

## IMF Country Missions

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I have been sent to more than 30 countries to contribute to IMF program negotiations, Article IV, FSAP, technical assistance missions, etc.

- **Mauritania:** monetary operations (2023)
- **Bosnia and Herzegovina:** FX management (mission chief, 2022)
- **Burundi:** monetary operations (2022)
- **Algeria:** monetary operations (mission chief, 2022)
- **United Arab Emirates:** monetary operations (co-mission chief, 2021)
- **Namibia:** liquidity forecasting (mission chief, 2021)
- **Jordan:** liquidity forecasting (mission chief, 2021)
- **Djibouti:** liquidity forecasting (mission chief, 2021)
- **Hong Kong SAR:** FSAP, systematic liquidity and stress-testing (2021)
- **WAEMU:** FSAP, stress-testing (2021)
- **D.R Congo:** IMF program negotiations (2020)
- **Tunisia:** liquidity forecasting (2020)
- **South Korea:** FX reserves management (2020)
- **Morocco:** FX interventions (2020)
- **P.R China:** Risk modeling (mission chief, 2019)
- **India:** Financial modeling (2019)
- **Philippines:** Financial modeling (2019)
- **Malaysia:** Financial modeling (2019)
- **Singapore:** Financial modeling (2019)
- **Israel:** IMF Article IV, external sector (2019)
- **Albania:** IMF Article IV and post-program (2018, 2019)
- **Peru:** FSAP, systematic liquidity and stress-testing (2017, 2018)
- **PR China:** ECB negotiations, RMB Eurosystem portfolio (2015)

## Teaching

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I have been teaching financial modeling and financial operations to countries officials and central bankers around the world, often via IMF technical assistance centers.

- **Singapore:** [FX Intervention Rules](#) (2023)
- **Singapore:** liquidity forecasting (2022)
- **Ghana:** liquidity forecasting (2022)
- **Kuwait:** liquidity forecasting (2021, 2022)
- **Slovenia:** liquidity forecasting (2022)
- **IMF Washington DC:** density modeling (2021)
- **Kazakhstan:** liquidity forecasting (2021)
- **Guatemala:** liquidity forecasting (2021)
- **Austria:** density modeling (2021)
- **Malaysia:** density modeling (2020)
- **IMF Washington DC:** Python (2019)
- **Sciences Po and ENSAE Paris:** Econometrics and macroeconomics (2010-2012)