

Jayden Zian Wang

Updated June 15, 2026

✉ zwang033@connect.hkust-gz.edu.cn [Personal web](#) [Google scholar](#) [Research gate](#)
[GitHub](#) [ORCID](#) [Scopus](#)

Research interests Quantitative Finance, Actuarial Science, Risk Management, Computational Finance

Education

Hong Kong University of Science and Technology
M.Phil. in Financial Technology 2025
Supervisors: [Prof. Yue Kuen Kwok](#) and [Prof. Ying Sun](#). *GPA: 3.87.*

Hong Kong Baptist University
B.Sc. in Financial Mathematics 2023
Supervisor: Prof. Sherry Zhefang Zhou. *GPA: 3.66.*

Honors

Full Postgraduate Scholarship for M.Phil. Student (HKUST) 2023 – 2025
Meritorious Winner in the Mathematical Contest in Modeling (MCM) 2022
Honorable Mention in the Interdisciplinary Contest in Modeling (ICM) 2021

Publications

Dynamic Portfolio Choice with Stochastic Liquidity Risk: A Perturbation Approach
Jayden Zian Wang, Zheqi Fan, Yifan Ye.
Finance Research Letters, 2026. [\[DOI\]](#)

Simulation-Analytical Approach for Calculating VaR Contributions in Credit Portfolios
Jayden Zian Wang, Zhenzhen Huang, Yue Kuen Kwok.
Quantitative Finance, 2026. [\[DOI\]](#)

Research experience

Efficient solutions of risk measures conditional on zero probability events Research assistant
Supervisor: Prof. Yue Kuen Kwok (HKUST) Feb 2025 – Aug 2025
We give some semi-analytical solutions of various calculating-challenging risk measures conditional on zero probability events based on the conventional industrial framework. Also, we apply several advanced Monte Carlo methods, such as cross-entropy method with randomized quasi-Monte Carlo sampling, to evaluate our targets as benchmark. Our core contribution is that we design several novel algorithms in evaluating the zero probability events analytically, and our proposed algorithms incorporated with Monte Carlo are much more efficient and accurate than the existing methods.

Teaching experience	Teaching assistant with tutorials, Department of Mathematical Sciences (BNBU)	Sep 2025 – Present
	TA for FINM 2063 - Introduction to Finance	
	TA for FINM 3023 - Fixed Income Securities and Their Derivatives	
Teaching experience	TA for COMP 3283 - Data Structure	
	TA for GCAP 3193 - Investment Practice	
	TA for FIN 3063 - Principles of Corporate Finance	
	TA for FINM 2073 - Introduction to Python for Mathematical Computing	
	Teaching assistant with tutorials, Thrust of FinTech (HKUST)	Sep 2023 – Feb 2025
	TA for FTEC 5230 - Financial Risk management	
Industry experience	TA for FTEC 5050 - Machine Learning and Artificial Intelligence	
	China Construction Bank Fintech Co., Ltd.	Shanghai, China
	FinTech Intern	Spring 2026
Industry experience	I assisted the Shanghai Credit Card Center in developing an AI fully-hosted default warning agent for credit card users. As a prompt engineer, I formulated and standardized the entire default warning workflow. Based on this complete work chain, we collaboratively developed a series of robust and efficient SKILLS.md files after back-testing day and night. Our default-warning agent ultimately achieved approximately 90% consistency with the historical defaulted data, which performs favorably well in terms of both accuracy and efficiency.	
	Northeast Securities Co., Ltd. Securities Research and Consulting Branch	Shanghai, China
	Financial Engineering Intern	Summer 2021
Industry experience	I analyzed sector rotation strategies in the A-share market and observed that sectors with strong past performance tended to continue outperforming. To better understand the drivers behind effective sector rotation, I developed a quantitative stock selection model that evaluated the contributions of typical systematic risk factors, like momentum, volatility, and the Sharpe ratio, etc. In this process, I measured momentum using historical returns, calculated volatility and Sharpe ratios for different sectors, and conducted comprehensive back-testing over a 20-year period using Python. The results revealed that volatility and Sharpe ratio factors exhibited strong stability over time, while momentum delivered higher returns but with greater inconsistency. Ultimately, combining these three factors significantly improved the overall stability and robustness of the sector rotation model.	
Project	A Fortune-telling tool – Plum Blossom Numerology	[Link]

For personal interest, I have developed a divination website based on a traditional oriental astrology. The method used is called Meihua Yishu (also known as *Plum Blossom Numerology*), an interesting genre of I Ching divination that emphasizes numerical and environmental symbolism. It can replace traditional fortune tellers to help you cast a divination to a certain extent, and the generated divination results can either be analyzed by yourself or assisted by an arbitrary AI.

Skills

Programming

Python, R, SQL, Matlab, C++, $\LaTeX$

Languages

English, Mandarin

Other interests

Swim and music.