Zijin Wang

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Education

- 2021.12 – 2022.12 Humboldt University in Berlin, Germany, visiting scholar,
  funded by China Scholarship Council
- 2017.09 – present Southwestern University of Finance and Economics, Master and Ph.D. degree candidate in Mathematical Finance
  (Defense schedule: 2024 November)
- 2013.09 - 2017.06 Southwestern University of Finance and Economics, GPA: 3.6
  Bachelor of Science + Bachelor of Economics, Mathematics and Applied Mathematics

Research interest

- Financial risk management, financial asset pricing, cryptocurrency
- Deep learning, time series, network models

Research paper

- Volatility Cluster and Its Implications in Value at Risk (joint with Peimin Chen, Chunchi Wu, Peng Liu), *International Review of Finance and Economics,* 2024, 94
  MATLAB codes: wzj5163/Cluster-partition-volatility (github)
- Network Portfolio and its Estimation under High-dimensionality (joint with Rui Ren, Wolfgang Karl Härdle, Wei Biao Wu), R&R in Journal of Business and Economic Statistics
  R codes：wzj5163/Network-portfolio (github)
- Risk Premia in the Bitcoin Market (joint with Caio Almeida, Maria Grith, Ratmir Miftachov), working paper
  Python & MATLAB codes：wzj5163/CDI_EPK_BTC (github)
- GEV-based Distance to Default (joint with Peimin Chen, Chunchi Wu), working paper
  MATLAB codes：wzj5163/Distance_to_default (github)
- Firms’ environmental performance and stock returns long-term volatility level and connectedness. Evidence from international comparison (joint with Gianluca Vagnani, Jinhuan Tian, Yan Dong), working paper
- Markovian Dynamic Correlation（joint with Gianluca Vagnani）Working Paper；
- Regime-Dependent Multi-Task Learning for Risk-Adjust Portfolio (joint with Junzo Watada, Yicheng Wei, working paper)

Academic conference

- 2024 The 19th International Symposium on Management Engineering (ISME 2024), Matsue, Japan
  report paper “Regime-Dependent Multi-Task Learning for Risk-Adjust Portfolio”
  Conference webpage: ISME2024
- 2024 16th Annual SoFiE Meeting, Rio de Janeiro, Brazil
  report paper “Risk Premia in the Bitcoin Market”
  Conference webpage: SOFIE2024
- 2022 STAT of ML, Prague, Czech Republic
  report paper “Network Portfolio and its Estimation under High-dimensionality”
  Conference webpage: STAT of ML 2022
- 2022 ML Approaches Finance and Management, Berlin, Germany
  report paper “Network Portfolio and its Estimation under High-dimensionality”
  Conference webpage: ML approaches Finance and Management
- 2022 Haindorf Seminar, Hainice, Czech Republic
  Report paper “Volatility Cluster and Its Implications in Value at Risk and Option Pricing”

Conference webpage: Haindorf Seminar 2022

- 2019 The 2nd National Mathematical Finance Doctoral Forum, Chengdu, China
  report paper "Volatility Cluster and Its Implications in Value at Risk and Option Pricing"

Academic Project with funding

- 2020 Central Universities Basic Research Fund Doctoral Research Project (JBK2007195, completed), as project leader (10,000 RMB)
  Project title: Volatility Cluster and Its Implications in Value at Risk and Option Pricing
- 2016 The 13th Undergraduate Research Innovation Project of Southwestern University of Finance and Economics
  Project title: Research on the influencing mechanism of second-child gender preference in Chinese families from a micro perspective—Empirical analysis based on CFPS data (completed with A-level)

Working experience

2023.12 – 2024.03 China Post & Capital Fund Management Co.,Ltd Quantitative Intern

- Daily investment research, mailly focus on machine learning investment strategies and quantitative fund selection strategies, assisting in establishing the department's model library and strategy library, and assisting in building the department's quantitative fund selection scoring and quantification programmes.
- Research the target products of major asset classes in the global market
- Analysis and research on the influencing factors of the secondary market of public REITs, and constructing a stable investment portfolio of REITs

Teaching experience

- Teaching Assistant: Mathematical Analysis (3 years), Advanced Algebra (2 years), Advanced Algebra in English (1 year), Analytical Geometry, Probability Theory and Mathematical Statistics (1 semester)
- Online courses
  Graph theory minimum spanning tree and its applications: Minimum Spanning Tree | Quantinar
  Network Portfolio: Network Portfolio | Quantinar

Awards

- 2019 2019 Second Prize for Thesis at the Second National Mathematical Finance Doctoral Forum
- 2018 College Student Comprehensive Quality A-Level Certificate
- 2017 Outstanding Graduates of Southwestern University of Finance and Economics
- 2015 National Second Prize in National Undergraduate Mathematical Modeling Competition

Other Skills

- Programming ability:
  - Proficient: MATLAB, R, and Python
  - Intermediate: SPSS, Stata, SAS
- Language:
  - English: proficiency, IELTS 6.5, TOEFL 85
  - Chinese: mother tongue
  - German: beginner
- Software:
  - Proficient: LeTeX, Gephi, ffmep
- Data retrieval
  - Proficient: Wind, WRDS database
  - Intermediate: Bloomberg