CHENKAI WANG

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WORK EXPERIENCE

Southern University of Science and Technology, China   Sep. 2024 - Now

Research Assistant, Supervisor: Prof. Peng Yang   Department of Computer Science and Engineering

EDUCATION

Southern University of Science and Technology, China   Sep. 2022 - Jul. 2024

M.S. in Mathematics (**with distinction**)   GPA: 88.6/100

Supervisor: Prof. Peng Yang   Department of Statistics and Data Science

Southern University of Science and Technology, China   Sep. 2017 - Jul. 2022

B.S. in Statistics   GPA 3.03/4.00 (Last Year: 3.82/4.00, Last Semester: 3.91/4.00)

Supervisor: Prof. Yifang Ma   Department of Statistics and Data Science

PUBLICATIONS

Article (as the first author)

- **Chenkai Wang**, Junji Ren, and Peng Yang, "Alleviating Non-identifiability: a High-fidelity Calibration Objective for Financial Market Simulation with Multivariate Time Series Data," *IEEE Transactions on Computational Social Systems*, pp. 1–13, 2025. DOI: 10.1109/TCSS.2025.3574236.

Articles (as a middle author)

- Xinyi Yuan, Zhiwei Shang, Zifan Wang, **Chenkai Wang**, Zhao Shan, Zhenchao Qi, Meixin Zhu, Chenjia Bai, and Xuelong Li, "Preference Aligned Diffusion Planner for Quadrupedal Locomotion Control," *IEEE/RSJ International Conference on Intelligent Robots and Systems(IROS)*, 2025.

- Junjie Zhao, Chenxi Zhang, **Chenkai Wang**, and Peng Yang, "Learning from Expert Factors: Trajectory-level Reward Shaping for Formulaic Alpha Factors Mining," *Submitted to IEEE Transactions on Signal Processing, Under Review*, 2025+.

- Pang Yang, Zhenhua Yang, Boquan Jiang, **Chenkai Wang**, Ke Tang, and Xin Yao, "Evolutionary Dynamic Optimization as an Online Calibrator for Complex Simulations," *In Preparation*, 2025+.

HONORS AND AWARDS

Outstanding Graduates honor, *SUSTech*   2024

Outstanding Graduate Student, *SUSTech*   2024

Excellent Student Cadre, *SUSTech*   2023

National Encouragement Scholarship, *SUSTech*   2020, 2021

Provincial Second Prize in Chinese Mathematics Competitions, *Chinese Mathematical Society*   2021

Provincial Third Prize in Chinese Mathematics Competitions, *Chinese Mathematical Society*   2020

PROJECTS

Advanced Network Science Project and Homework   Sep. 2022 - Jan. 2024

Individual Homework and Project, Prof. Yanqing Hu   Shenzhen

- Designed, analyzed, and proved the manipulation of PageRank by spam farms [HW 1 & 2].

- Simulated greedy routing on Kleinberg Model to evaluate clustering exponent impact [HW 3].

- Analyzed component sizes, giant component dynamics, and phase transitions [HW 4].

- Proposed a three-community detection method using recursive spectral bisection [HW 5].

- Proved and verified delivery time bounds in constrained Kleinberg Model [Final Project].

INVITED TALKS

"High-Fidelity Calibration of Financial Market Simulation with Multivariate Time Series Data"
   –UltraQuant Investment (Private Equity Fund, RMB ¥3B+ AUM), Shenzhen   June 25, 2025

TEACHING ASSISTANTS

Southern University of Science and Technology:

MA212: Probability and Statistics, 2023 Spring, rated excellent by the lecturer: Prof. Guoliang Tian

MA204: Mathematical Statistics, 2023 Spring, rated excellent by the lecturer: Prof. GABRIELLE JING

STA217: Introduction to Data Science, 2024 Fall, rated excellent by the lecturer: Yifang Ma

MISCELLANEOUS

Languages: *English*: Fluent, TOEFL (83)   *Chinese (Mandarin):* Native

Computational Skills: Python, MATLAB, LaTeX.

Interests: Movies, Reading, Basketball, Running, Voluntary Activity (more than 80 hours).