

# 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<sup>✉</sup>, “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, Meixin Zhu<sup>✉</sup>, Chenjia Bai<sup>✉</sup>, 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<sup>✉</sup>, “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<sup>✉</sup>, and Xin Yao, “Posterior Distribution-assisted 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, L<sup>A</sup>T<sub>E</sub>X.

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