CHENKAI WANG

Email: wangck2022@mail.sustech.edu.cn ◇ Web: chenkai-wang.github.io ◇ Last Updated: June 25, 2025

WORK EXPERIENCE

Southern University of Science and Technology, China Sep. 2024 - Jan. 2025

Full-time 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: 3.92/4.00)

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

PUBLICATIONS

Article (as the first author)

Wang, C., Ren, J., & Yang, P. (2025). alleviating non-identifiability: a high-fidelity calibration objective for financial market simulation with multivariate time series data. *IEEE Transactions on Computational Social Systems*. https://doi.org/10.1109/TCSS.2025.3574236

Articles (as a middle author)

Zhao, J., Zhang, C., **Wang, C.**, & Yang, P. (2025+). Trajectory-level based reward shaping for mining formulaic alpha factors via reinforcement learning. *In Preparation*.

Yuan, X., Shang, Z., Wang, Z., **Wang, C.**, Shan, Z., Qi, Z., Zhu, M., Bai, C., & Li, X. (2025). preference aligned diffusion planner for quadrupedal locomotion control. *IROS 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

- Page Rank and Spam Farm in Graphs [HW 1 & 2].
- Small World Phenomena and the Greedy Algorithm [HW 3].
- ER Network and Giant Component [HW 4].
- Community Structure, Spectral Analysis, and its Generalization [HW 5].
- Added constraints to Jon Kleinberg's network model, proved the corresponding expected delivery time, and implemented greedy algorithm in Python to validate results [Final Project].

Semi-parametric regression Project: Linear-based and other applicable methods for riboflavin dataset (n =71, p=4088, regression problem) Jan. 2023

Individual Project, Prof. CHEN XIN Shenzhen

- Randomly split data into 80% training (n = 57) and 20% testing (n = 14) sets to ensure unbiased generalization evaluation.
- Applied Lasso, Elastic Net, LARs, PCA Regression, and Random Forest for model fitting, using LOOCV to generate 57 distinct data pairings and 5-fold cross-validation to optimize coefficients.
- Used features from both Lasso and LARs to build a linear model and checked for normality, independence, and homoscedasticity.
- Used the ensemble approach to combine 57 individual models, selecting the best based on MSE and error range.

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).