

# CHENKAI WANG

Email: wangck2022@mail.sustech.edu.cn ◇ Web: chencai-wang.github.io ◇ Last Updated: March 30, 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: 3.91/4.00)  
Supervisor: Prof. Yifang Ma Department of Statistics and Data Science

## PREPRINTS

**Wang, C.**, Ren, J., & Yang, P. (2024). alleviating non-identifiability: a high-fidelity calibration objective for financial market simulation with multivariate time series data [*submitted to IEEE Transactions on Computational Social Systems, Major Revision*]. *arXiv:2407.16566*.

## 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

- Applied Lasso, Elastic Net, LARs, PCA Regression, and Random Forest for model fitting, using LOOCV to generate 71 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 71 individual models, selecting the best based on MSE and error range.

**Sample Survey Project: Study conditions for SUSTech Undergraduates** Mar. 2020 - Jun. 2020

*Planner and Designer, Prof. CHEUNG Siu Hung* Online

- Conducted an entire sample survey process (include focus group meeting, questionnaire design, pilot study, data collection and analysis, presentation, etc.) to collect the study condition.
- Used ANOVA and paired-sample t-tests to compare on-campus and online study conditions, including assignment and review, sleep and exercise, and class learning.

## 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,  $\text{\LaTeX}$ .

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