CHENKAI WANG

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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

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, LaTeX.

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