CHENKAI WANG(王晨凯)

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WORK EXPERIENCE

Southern University of Science and Technology, China *2024.09-2025.02(expected)*
Research Assistant, Supervisor: Prof. Peng Yang Department of Computer Science and Engineering

EDUCATION

Southern University of Science and Technology, China *2022-2024.07*
Master of Science, **with distinction** GPA: 88.6/100
Major in Mathematics, Department of Statistics and Data Science, Supervisor: Prof. Peng Yang

Southern University of Science and Technology, China *2017-2022*
Bachelor of Science, GPA 3.03/4.00 (Latest Year: 3.82/4.00, Latest Semester: 3.92/4.00)
Major in Statistics, Department of Statistics and Data Science, Supervisor: Prof. Yifang Ma

PREPRINTS

Alleviating Non-identifiability: a High-fidelity Calibration Objective for Financial Market Simulation with Multivariate Time Series Data, **Chenkai Wang**, Junji Ren, Peng Yang(✉) (submitted to IEEE transactions on Computational Social Systems, under review, available on arXiv)

Preference Aligned Diffusion Planner for Quadrupedal Locomotion Control, Xinyi Yuan, Zhiwei Shang, Zifan Wang, **Chenkai Wang,** Zhao Shan, Zhenchao Qi, Meixin Zhu(✉), Chenjia Bai(✉), Xuelong Li(submitted to ICRA 2025, available [here])

HONORS & AWARDS

Outstanding Graduates Honor	2024
Outstanding Graduate Student	2024
Excellent Student Cadre	2023
National Inspirational Scholarship	2020, 2021
Provincial Second Prize in The Chinese Mathematics Competitions	2021
Provincial Third Prize in The Chinese Mathematics Competitions	2020

PROJECT EXPERIENCES

Advanced Network Science Project and Homework Sept. 2022 – Jan. 2023
Individual Project and Homework, Prof. Yanqing Hu *Shenzhen*

- Proved the expected delivery time with extra constrain based on Jon Kleinberg's network model .
- Implemented greedy algorithm with Python, confirming consistency between theory and simulation.
- Conducted reports on PageRank, trust rank, ER network components, and community detection.

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 – June 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.

Statistical Linear Model Project: Socioeconomic Factors on HIV Dec. 2020

Individual Project, Prof. CHEUNG Siu Hung *Shenzhen*

- Fitted regression models (full model, stepwise regression) to identify key factors influencing HIV prevalence.
- Diagnosed models for normality, linearity, variance homogeneity, and multicollinearity to ensure validity

Time Series Analysis Project: Analysis of Monthly Airline Passenger Dec. 2019

Group member Prof. Xuejun Jiang *Shenzhen*

- Processed data with transformations and fitted an ARIMA model based on ACF/PACF analysis.
- Diagnosed the model using residual plots, Q-Q plots, and the Ljung-Box test.

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: Prof. Yifang Ma

MISCELLANEOUS

Standard Tests: CET-6, TOEFL: 83.

Computer Skills: Python, MATLAB, R, LaTeX

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