CHENKAI WANG

+86 18091759908 | 12232885@mail.sustech.edu.cn | Chenkai-Wang.github.io

EDUCATION

Southern University of Science and Technology, China *2022-2024(expected)*
Master of Science, GPA 3.60/4.00, average: 90.7/100(rank: 7/24)
Major in Mathematics, Supervisor: Prof. Yang Peng

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, Supervisor: Prof. Ma Yifang

AWARDS & HONORS

Outstanding Graduate Student	2023
Excellent Student Carde	2023
National Encouragement Scholarship	2020, 2021
Provincial Second Prize in The Chinese Mathematics Competitions	2021
Provincial Third Prize in The Chinese Mathematics Competitions	2020

RESEARCH & PROJECT EXPERIENCES

Prof. Yang Peng's Lab(Financial Simulation Intelligence Lab) Sept. 2022 – Now

Pursing master's degree *SUSTech, Department of Statistics and Data Science*

- Modeling the financial simulation process as optimization problem.
- Releasing the non-identifiability problem(NIP) during the optimization, one work is writing, one work is in experimenting, one work is in discussing, all works are around releasing NIP.
- Learning the black-box optimization methods, especially evolutionary-based algorithms.

Prof. Liu Quanying's Lab (Computational Neuroscience Lab) June 2021

Summer School held by Prof. Liu *SUSTech, Department of Biomedical Engineering*

- Watched recent talks on neuroscience brain mechanisms and did oral presentations in the lab.
- Learned basic concepts and models in machine learning and statistical learning.
- Read literature about EEG source localization as well as EEG and FMRI signal fusion.

Advanced Network Science Project And Homework Sept. 2022 – Jan. 2023

Individual Project and Homework *Shenzhen*

- Discussed and proved the expected delivery time with extra constrain based on the network model proposed by Jon Kleinberg.
- Used Python to implement the greedy algorithm for simulation and found the simulation result and theoretical result are consistent.
- Wrote homework about page rank and trust rank, ER network and giant component, 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 *Shenzhen*

- Applied linear feature selection methods such as Lasso, Elastic Net, LARs, along with techniques like Principal Component Regression and Random Forest for model fitting.
- Utilized LOOCV to differentiate between training and testing sets, resulting in 71 distinct data pairings. Within each pairing, 5-fold cross-validation was employed to identify optimal coefficients for the aforementioned methods.
- Used features identified by Lasso and LARs for linear model fitting, and subsequently assessed their normality, independence, and homoscedasticity.
- Adopted a model ensemble approach to amalgamate 71 models into a final model for each method, using MSE and error range as criteria for selecting the best model.

Sample Survey Project: Study conditions for SUSTech Undergraduates Mar. 2020 – June 2020

Planner and Designer *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 test and paired-samples T test to compare the difference between school study and online study, including assignment and review, sleep and exercise, and class learning.
- Obtained the study conditions of SUSTech undergraduates.

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

Individual Project *Shenzhen*

- Learned the background information about HIV and its prevalence.
- Fitted the model (include full model, stepwise regression, etc.) to determine the main factors.
- Diagnosed the model in normality, linearity, homogeneity of variance, multicollinearity, and so on.

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

Group member *Shenzhen*

- Analyzed data by taking the logarithm, difference, and seasonal difference and drawing corresponding ACF and PACF plots for further analysis.
- Used the ARIMA model to fit the data and calculated the coefficients.
- Diagnosed the model via the residual plot, the residual ACF plot, Q-Q plot, and so on.

INTERNSHIP&ACTIVITIES

Prudential Jan. 2019

Intern *Hong Kong*

- Got familiar with the fund information of some investment banks and regulated the fund investment.
- Packaged funds and ran simulations for different years to produce portfolio analysis for the team to use as a reference.

- Collected all kinds of information based on industry integration tools such as PESTEL and the Five Forces Model and provided basic information for the company to make brochures entering other regional markets.

Homecoming Feb. 2019

Person in charge *Baoji*

- Took charge of and coordinated the homecoming work of the city, including allocating publicity materials, contacting other schools, online publicity, offline lectures, etc.
- Attracted more than 1000 students to participate.

Love Letter Plank Road in SUSTech Dec. 2017

In charge of publicity *Shenzhen*

- Organized and prepared the love letter plank road activity, attracting more than 1,000 people in total.
- Took charge of publicity and writing through the whole activity. The related articles have been read more than 500 times.

TEACHING ASSISTANTS

Southern University of Science and Technology:

MA212: Probability and Statistics, 2023 Spring, rated excellent by the lecturer: Prof. Tian Guoliang

MA204: Mathematical Statistics, 2023 Spring, rated excellent by the lecturer: Prof. GABRIELLE JING

STA217: Introduction to Data Science, 2023 Fall

MISCELLANEOUS

Standard Tests: CET-6, TOEFL: 83, Postgraduate Entrance Exam: 341(rank: 2/60+).

Computer Skills: Python(project experience), MATLAB (project experience), LaTeX (project experience).

Interests: Movies, Reading, Basketball (once played for the school team), Running (half marathon P.B. 206), Voluntary Activity(more than 80 hours).

Last update on Nov. 28th, 2023