# HANBIN LIU

Homepage: https://hanbin-liu.github.io & Email: liuhanbin1023@gmail.com & Phone:15273687835

#### **EDUCATION**

Southern University of Science and Technology(SUSTech), Shenzhen Sep 2019-Present Junior Undergraduate Major in Statistics, Department of Statistics and Data Science

- GPA: 3.87/4.00 Ranking: 2/41(top5%)
- · Core courses: Probability Theory(100), Mathematical Statistics(100)

#### **SKILLS**

R, Python, MATLAB, Java, LaTeX

#### RESEARCH EXPERIENCE

## Prof. Guo-Liang Tian's Group(Computational Statistics)

Sep 2021- Present Shenzhen, China

 $Department\ of\ Statistics\ and\ Data\ Science,\ SUSTech$ 

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## Prof. Jicong Fan's Group(Computer Vision)

Jul 2021- Sep 2021

Research Intern, School of Data Science, CUHK-Shenzhen

Shenzhen, China

- · Deriving the kernel version of Selective Sampling-based Scalable Sparse Subspace Clustering for non-linear cases.
- · Solving LASSO problems in our research by using the cyclic coordinate descent method.

#### Prof. Alice Cheng's Group(Content Analysis)

Jul 2021-Aug 2021

Research Intern(Remote), Department of Communication, NC State University

NC, U.S.A

- · Using content analysis to research COVID-19 hot issues and agenda building in China.
- · Examing the reliability by calculating coefficients like Scott's Pi, Cohen's Kappa, and Krippendorff's alpha.

#### PROJECT& SEMINAR

#### Data Mining Applications in DC Crime(Supervisor: Prof. Zhen Zhang)

Spring 2021

- · Data statistics and data visualization, including data preprocessing, visualization, correlation analysis and analysis of crimes over geography and time.
- · Classification & Clustering: classify(cluster) the geography by the crime events.
- · Predicting the number of crimes in the future and using PCA to reduce dimensionality.

## Self-contained Report on Discrete Math(Supervisor: Prof. Qi Wang)

Fall 2020

- · Stating the methods of solving linear recurrence relations in the language of linear algebra.
- · Report: https://hanbin-liu.github.io/linear-recurrence-report/

#### AWARDS & HONORS

· The 12th Chinese Mathematics Competitions(Provincial First Prize)

Dec 2020

· China National Encouragement Scholarship

Nov 2020, 2021

## **OTHERS**

 $\cdot$  GitHub: https://github.com/Hanbin-Liu