

# HANBIN LIU

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## EDUCATION

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**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: 2/43(top5%)
- Core courses: Probability Theory(100), Mathematical Statistics(100)

## SKILLS

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R, Python, MATLAB, Java, LaTeX

## RESEARCH EXPERIENCE

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**Prof. Jicong Fan's Group(Clustering Algorithms)** *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.
- Examining the reliability by calculating coefficients like Scott's Pi, Cohen's Kappa, and Krippendorff's alpha.

## PROJECT& SEMINAR

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**Biostatistics and Computational Statistics Seminar** *Fall 2021*  
*Supervisor: Prof. Guo-Liang Tian*

**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

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- The 12th Chinese Mathematics Competitions(Provincial First Prize) *Dec 2020*
- China National Encouragement Scholarship *Nov 2020, 2021*

## OTHERS

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- GitHub: <https://github.com/Hanbin-Liu>