# YIXUAN LIU

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## EDUCATION

**Southern University of Science and Technology (SUSTech)**      Shenzhen, China
*M.S. in Statistics, Department of Mathematics*      Sept. 2020 – Expected June 2022
**GPA: 3.64**/4.00 (top **3/15**)
Related courses: Advanced statistics (A+), Functional Data Analysis (A+), Categorical Data Analysis (A+), Social Network Analysis (A-), Selected Research Topics in Statistics (A-)

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| **Southern University of Science and Technology (SUSTech)** | | Shenzhen, China |
| *B.S. in Statistics, Department of Mathematics* | **GPA: 3.37**/4.00 | Sept. 2016 – June 2020 |
| **University of Wisconsin-Madison (UW-Madison)** | | Madison, WI, US |
| *Visiting International Students Program **Statistics Cohort*** | **GPA: 3.75**/4.00 | Sept. – Dec. 2019 |
| **Illinois Institute of Technology (IIT)** | | Chicago, IL, US |
| *Summer Research Program* | **GPA: 4.00**/4.00 | July – Aug. 2019 |
| **King's College London (KCL)** | | London, UK |
| *Summer Program (Healthcare and Technology)* | **Mark: 65** | July – Aug. 2018 |

## STANDARDIZED LANGUAGE TEST

TOEFL iBT Test: **27** Reading + **27** Listening + **25** Speaking + **26** Writing, Total **105**
GRE General Test: Verbal **158** (80th percentile) + Quantitative **166** (89th percentile), Total **324**

## RESEARCH EXPERIENCES

**Quantifying Award Network and Career Development in Movie Industry**      Mar. 2021 – Present
Supervisor: Prof. Yifang Ma, Department of Statistics and Data Science, **SUSTech**, China
- Constructed and analyzed multilayer networks of prize, award winners and social ties with network-based statistics
- Quantified early career prize winning through classification methods including Logit and complementary log-log

**Statistical Learning on Giant Pandas' Ethology**      Nov. 2019 – May 2020
Supervisor: Prof. Yifang Ma, Department of Statistics and Data Science, **SUSTech**, China
- Applied unsupervised learning including hierarchical, partitional, spectral clustering and density-based methods
- Conducted the temporal data clustering with various distance measures including DTW, SDB and GAK
- Applied fuzzy-c means to explore the delayed reaction to the variation of time

**eTailers' Revenue Models and Customer Behavior Analysis Based on Big Data**      Dec. 2018 – Sept. 2019
Supervisor: Prof. Jae Kyu Lee, College of Business, **KAIST University**, Korea & **Xi'an Jiaotong University**, China
        And Prof. Jooyoung Park, PHBS Business School, **Peking University**, China
- Processed survey data, implemented linear and nonlinear regressions and residual analysis by R
- Figured out association rules and collaborative filtering behind the products displayed
- Attended ICEC 2019 (International Conference on Electronic Commerce), Korea as co-author and presenter

## PROJECTS

**Functional Data Analysis of Fruit Fly and Life Table**      Shenzhen, China
Class Instructor: Prof. Jiangqing Shi, Department of Statistics and Data Science, **SUSTech,** China      Mar. – June 2021
- Fitted with appropriate basis and dimension reduction with PLS, functional PCA, dynamic fPCA
- Created and compared different scalar-on-function models, functional time series models and etc.

**Latent Variable Models for Mixed Normal and Binary Outcomes**      Chicago, IL, US
Supervisor: Prof. Lulu Kang, Department of Applied Mathematics, **IIT,** US      July – Aug. 2019
- Researched on parameter estimation for latent variable models by EM algorithm
- Implemented the Monte Carlo approach combined with EM algorithm to estimate parameters through Python
- Studied the latent variable model in fields of mixed continuous and ordinal responses

**Multivariate Analysis on Disease Prevalence and Control**      Madison, WI, US
Class Instructor: Prof. Wei-Yin Loh, Department of Statistics, **UW-Madison**, US      Sept. – Dec. 2019
- Clustered data and explored on geolocation's effect on clusters of cities by spatial visualization, and proximity
- Discovered latent relationships between disease prevalence and control approaches by Canonical Analysis

## TEACHING EXPERIENCES

2021    Teaching assistant of STA216-Introduction to Data Science @SUSTech
2021    Teaching assistant of MA409-Statistical Data Analysis (SAS) @SUSTech
2020    Student Mentor of Studying Consulting Service @SUSTech
2020    Teaching assistant of MA309-Time Series Analysis @SUSTech
2018    Student assistant at CLE (Centre of Language Education) @SUSTech

## HONORS & AWARDS

**2020    Outstanding Graduation Thesis Award at SUSTech**

2019    Innovative Research Paper Runner-Up (3rd author) in 21st International Conference on Electronic Commerce hosted by International Center for Electronic Commerce

**2019    Grand Prize Award in the Preliminary Round of  2019 "FLTRP ETIC Cup" English Writing Contest**

2019    Best Speaker of Preliminary contest in 22nd "FLTRP ETC Cup" National Debating Competition

**2018    Meritorious Winner in American Mathematical Contest in Modeling (MCM) (Award top 13%)**

2017    First Prize in 18th Guangdong Physics Experimental Design Competition (Award top 5%)

## PROGRAMMING & SOFTWARE SKILLS

Python, R, MATLAB, Latex, Stata