

# 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-)

### 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** (80<sup>th</sup> percentile) + Quantitative **166** (89<sup>th</sup> percentile), Total **324**

CET 4 (Chinese College English Test): **641** (top 5%); CET 6: **580**

## 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

- Fit 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

Class Instructor: Prof. Wei-Yin Loh, Department of Statistics, **UW-Madison**, US

Madison, WI, US

Sept. – Dec. 2019

- Grouped cities into clusters according to measures of disease prevalence and control
- 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

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2021	Teaching assistant of STA216-Introduction to Data Science @SUSTech
2021	Teaching assistant of MA409-Statistical Data Analysis (SAS) @SUSTech
2020-2021	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

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<b>2020</b>	<b>Outstanding Graduation Thesis Award at SUSTech</b>
2019	Innovative Research Paper Runner-Up (3 <sup>rd</sup> author) in 21 <sup>st</sup> International Conference on Electronic Commerce hosted by International Center for Electronic Commerce
<b>2019</b>	<b>Grand Prize Award in the Preliminary Round of 2019 “FLTRP ETIC Cup” English Writing Contest</b>
2019	Best Speaker of Preliminary contest in 22nd “FLTRP ETC Cup” National Debating Competition
<b>2018</b>	<b>Meritorious Winner in American Mathematical Contest in Modeling (MCM) (Award top 13%)</b>
2017	First Prize in 18th Guangdong Physics Experimental Design Competition (Award top 5%)

## PROGRAMMING & SOFTWARE SKILLS

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Python, R, MATLAB, Latex, Stata