

SUN, XIANLIN (JOYCE)

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EDUCATION

THE UNIVERSITY OF HONG KONG

PhD in Statistics, Postgraduate Scholarship

Coursework: Advanced Probability Theory, Theoretical Statistics Method

Research Area: Causal Inference, Bootstrap Method, Statistical Inference

2022 Sept. - present

Hong Kong SAR

UNIVERSITY OF MICHIGAN IN ANN ARBOR, THE COLLEGE OF LITERATURE, SCIENCE AND THE ARTS

MSc in Applied Statistics, GPA: 3.9/4.0

Coursework: Statistical Learning, Bayesian Statistics, Asymptotic Theory, Functional Analysis

Class of 2022

Ann Arbor, MI, US

THE UNIVERSITY OF HONG KONG

BSc in Actuarial Science, First Honor Degree (top 10%)

Coursework: Real Analysis, Statistical Inference, Computational Statistics, Algorithm and Data Structure

Undergraduate Research Fellowship (less than 10 counts per faculty);

Reaching Out Award Scholarship by Hong Kong Government Fund HKD 10,000;

Class of 2020

Hong Kong SAR

PROFESSIONAL EXPERIENCE

UNIVERSITY OF MICHIGAN

Big Data Research Assistant - Supervised by Prof. Yang Chen - Department of Statistics

Research Presentor - AGU 2021 Fall Conference

- Built a statistical model by using Gaussian Mixture Model (GMM) Algorithm based on realtime Total Electron Content (TEC) in ionosphere dataset to detect Equatorial Ionization Anomaly (EIA) in the ionosphere by MATLAB and Python;
- Constructed, managed and updated the database of EIA information generated by the GMM model on the cloud service.
- Presented the research project *Machine Learning Forecast and Statistical Exploration of Equatorial Ionization Anomaly based on Total Electron Content* on behalf of Department of Statistics, University of Michigan

2021 May - 2022 May

Ann Arbor, MI, US

New Orleans, LA, US

THE UNIVERSITY OF HONG KONG

Statistics Research Assistant - Supervised by Prof. Stephen Lee - Department of Statistics and Actuarial Science Hong Kong SAR

- Developed the general framework for post-model selection inference by novelly adopting bootstrapping technique;
- Extended the framework to the setting of Hypothesis Test on Monotonicity adopting the Lk function of Least Concave majorant;
- Justified the validity of Cross-entropy as a distance measure for the distributions in the application of the framework.

2020 June - 2021 June

HARVARD UNIVERSITY

Summer Research Fellow - Supervised by Prof. Junwei Lu - Biostatistics Department

- Screened the dataset of genes' mRNA with the Higher Criticism Method to find relevant genes influencing targeted disease;
- Constructed a Gaussian Graphical Model (GGM) on the screened dataset by GLASSO algorithm to obtain the CLIME estimator to express the correlation of genes' expression level and conducted inference on CLIME estimator.

2019 July - Sept.

Boston, MA, US

APOIDEA GROUP

Data Scientist Intern - Backend Developing Team

- Constructed a Semi-Supervised Learning Nature Language Processing System with Python to identify related stocks;
- Developed an noticing system to produce messages on the popularity of stocks in Hong Kong, generating insights for market changes and assisting in building the recommendation system based on the market analysis.

2018 July - Aug.

Hong Kong SAR

SEASONALIFE LIMITED

Fintech Analyst Intern - Data Science Team

- Built a Product Monitoring System using Python from scratch, automatically grabbing data from public resources and identifying realtime updates of insurance products in Hong Kong Market;
- Updated the insurance products database to assist in the market information collecting process and market prediction.

2018 Feb. - June

Hong Kong SAR

MISCELLANEOUS

Technical skills: Proficient knowledge of Microsoft Office Suite and Python, Matlab, R, C++ programming

Languages: I speak English and Mandarin fluently, and can conversationally speak Cantonese

Interests: Performance Singing (Band vocalist and manager at BleuEmon and Livehouse host), Voluntary Teaching (Certificate in Advanced Teaching by HKU), Theatre Play (Participated in the adapted immersive theatre play *And Then There Were None*), Road Trip, Hiking