

Yun Zhang

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RESEARCH INTERESTS

Graph Neural Networks, Recommendation System, Machine Learning, Causal Inference

EDUCATION

The Hong Kong University of Science and Technology (Guangzhou) Guangzhou
Ph.D. Student in Data Science and Analytics Sep. 2021 – Present

Supervisor: Professor Bingyi Jing

The University of Hong Kong Hong Kong
Master of Statistics Sep. 2020 – Jun. 2021

Thesis: *On Sequential Monte Carlo Methods for Parameter Estimation in State-Space Models*

Supervisor: Professor Wentao Li

Hong Kong University of Science and Technology Hong Kong
Visiting Student; CGA: 3.77/4.3 Sep. 2019 – Dec. 2019

Southern University of Science and Technology Shenzhen
Bachelor of Statistics; GPA: 3.75/4.00 Sep. 2016 – Jun. 2020

Thesis: *Hypothesis Testing in the Proportional Inverse Gaussian Distribution*

Supervisor: Professor Guoliang Tian

PUBLICATIONS

- **Zhang Yun**, Shi Kexin, Jing Bingyi. “*Hop-Mix-DNS: Hop-wise Mixing Dynamic Negative Sampling for Graph Neural Network-based Recommendation Systems*”. 2022. (submitted)

EXPERIENCE

Southern University of Science and Technology Shenzhen

- Teaching Assistant - Nonparametric Statistics Feb. 2020 - Aug. 2020
Prepare suggested solutions, and grade students' assignments and exams.
- Research Assistant - Object Detection and Ethology Data Analysis Jul. 2019 - Aug. 2019
Use YOLO (You Only Look Once) neural network to detect objects from experimental videos, and analyze extracted coordinates data by statistical methods.
- Teaching Assistant - Probability and Mathematical Statistics Feb. 2019 - Jun. 2019
Prepare suggested solutions and grade students' assignments weekly.
- Student Assistant - Java Mar. 2018 - Jul. 2018
Meet scheduled lab classes and answer questions, clarify materials. Prepare suggested solutions and auto-checking scripts, and grade assignments, tests, and exams.

PROJECTS

- **Parameter Estimation by LM-SMC algorithm**: Study the algorithms of estimating extreme quantiles of Cox-Ingersoll-Ross model under the generalized mixture Sequential Monte Carlo framework. (Master Thesis)

- **Hypothesis Tests of PIG Distribution:** Study several hypothesis tests for Proportional Inverse Gaussian distribution, and EM/MM algorithms for its inference. (Bachelor Thesis)
- **Nonparametric Statistics Manual:** Online manual of nonparametric statistical methods, developed with docsify.

SKILLS

- **Language:** English: fluent; Mandarin: native; Cantonese: conversational
- **Certificate:** Financial Risk Management (FRM)
- **Programming Languages:** Python, R, Matlab, Julia, Java

AWARDS

- HKU Subject Prize in STAT6010 Advanced Probability, Dec 2021
- SUSTech Outstanding Dissertation for Bachelor's Degree, May 2020
- HKU Entrance Scholarship for the Master of Statistics, April 2020
- SUSTech Outstanding Student Scholarship (Grade 2), Sep 2019
- SUSTech Outstanding Student Scholarship (Grade 3), Sep 2018
- SUSTech Outstanding Student Scholarship (Grade 3), Sep 2017